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PHILADELPHIA
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AN ILLUSTRATED SEMI-MONTHLY JOURNAL,
DEVOTED TO PHOTOGRAPHY.

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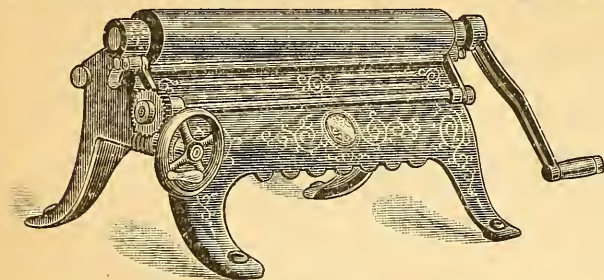
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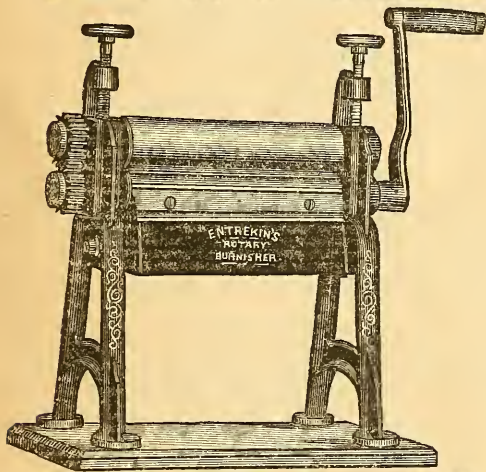
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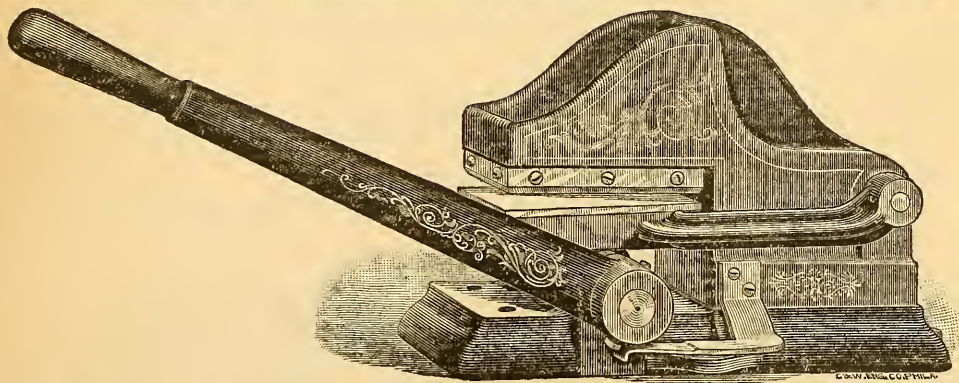
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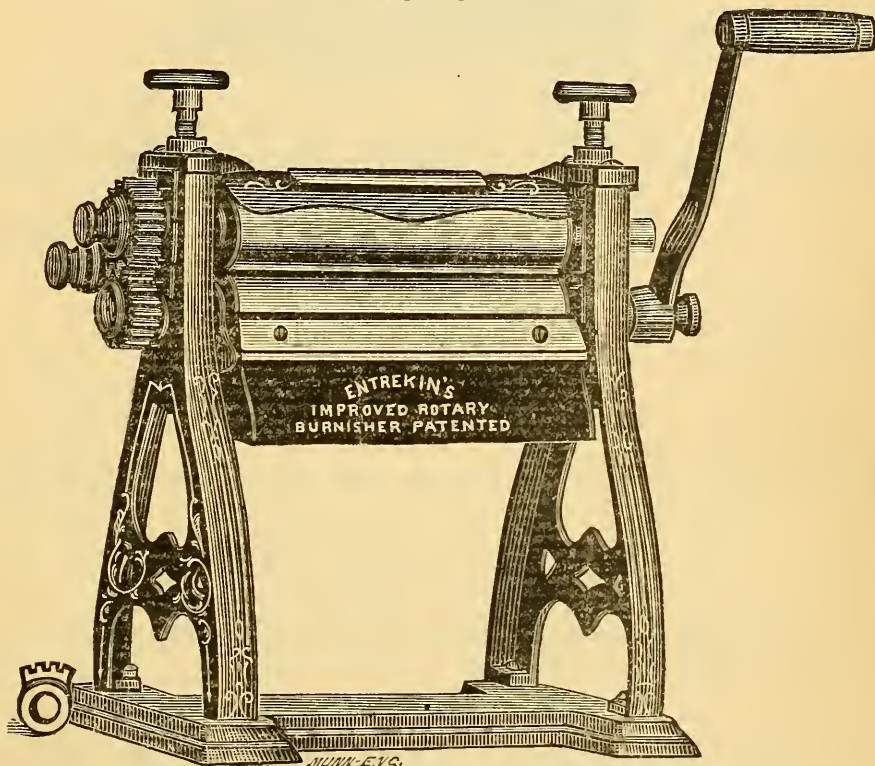
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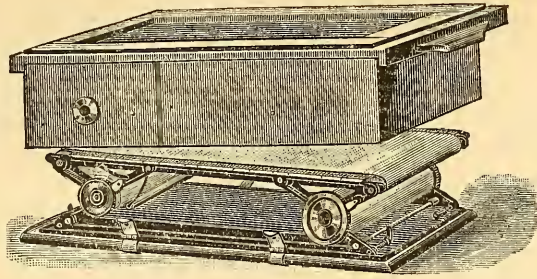
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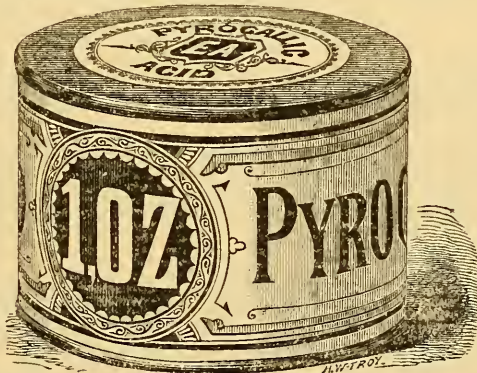
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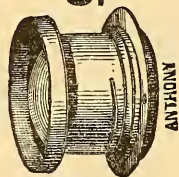
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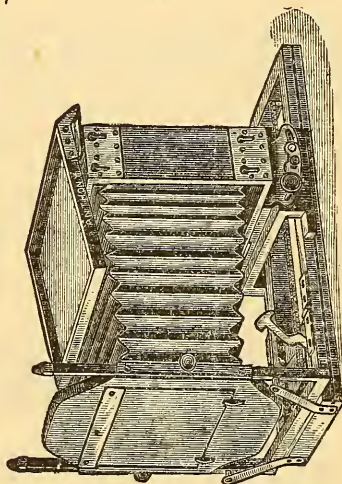
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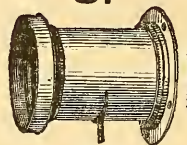
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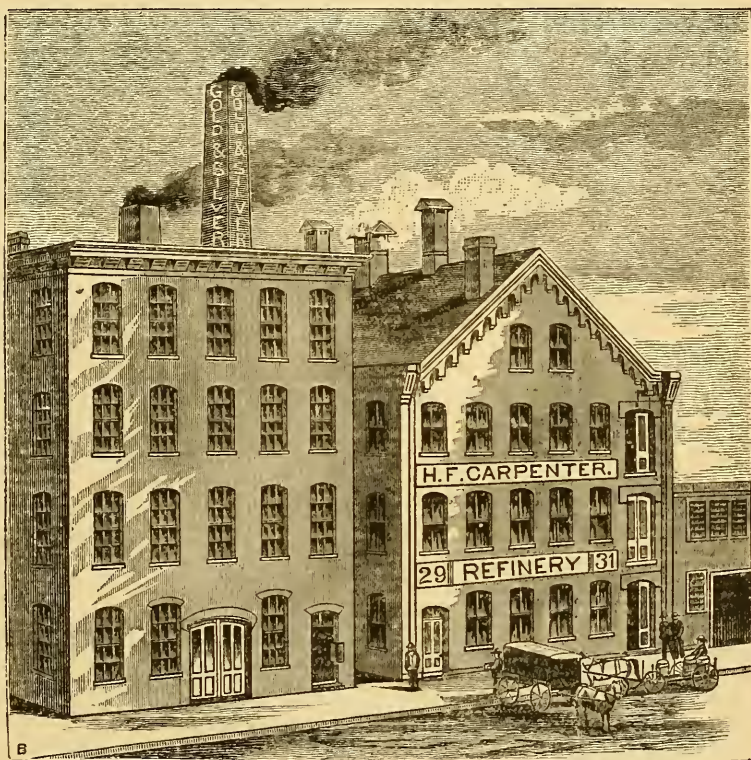
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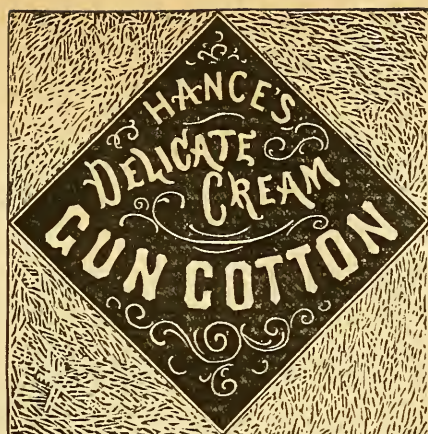
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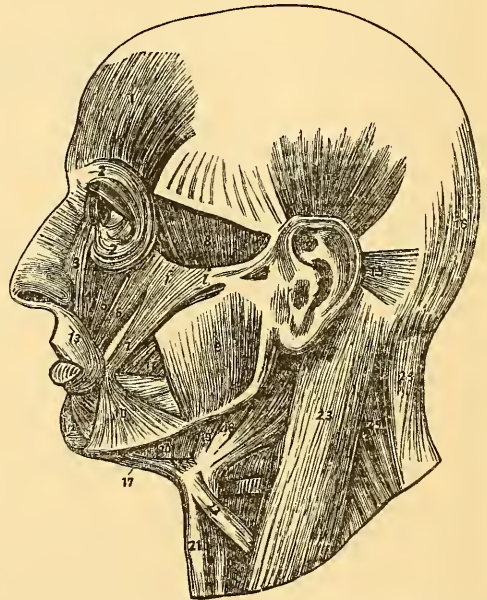
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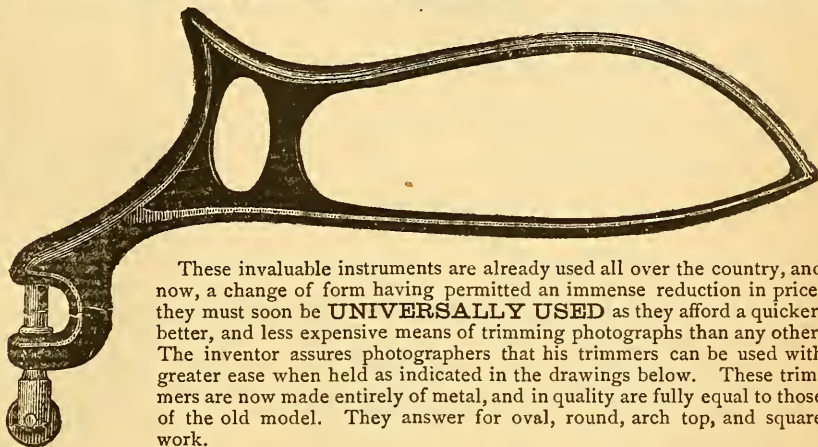
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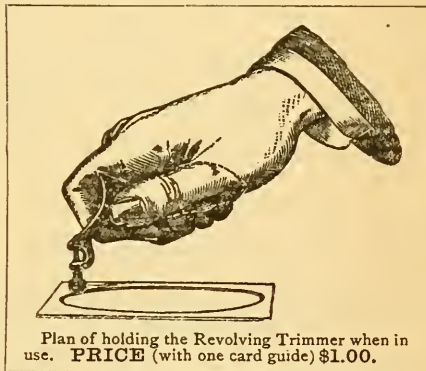
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- March 6th.*—The South. By H. L. ROBERTS, Philadelphia. Silver print, by ROBERTS & FELLOWS, Philadelphia.
- March 20th.*—The Toilers of the Sea. By H. S. WYERS, Yonkers, N. Y. Photo-gelatine print, by the PHOTOGRAVURE Co., New York.
- April 3d.*—The Bride. By J. F. RYDER, Cleveland, Ohio. Silver print, by ROBERTS & FELLOWS, Philadelphia.
- April 17th.*—Island of Philæ—South Colonnade. By EDWARD L. WILSON. Moss-type, by the MOSS ENGRAVING Co., New York.
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- May 15th.*—Listening to the Birds. By JOHN E. DUMONT, Rochester, N. Y. Photo-gelatine print, by the PHOTOGRAVURE Co., New York.
- June 5th.*—A Mikado Maiden. By G. CRAMER, St. Louis, Mo. Silver print, by ROBERTS & FELLOWS, Philadelphia.
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EDITED BY EDWARD L. WILSON.

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No. 265.

A HAPPY NEW YEAR.

WE wish all a happy New Year and promise as below to help make it so.

We desire to enlist your special interest in the *Twenty-third Year* of THE PHILADELPHIA PHOTOGRAPHER, and to call your attention to the following:

It will be issued *twice a month*.

There will be no advance in the price to subscribers.

The publication office will be at No. 853 Broadway (cor. Union Square), New York.

The first issue of each month will be embellished as usual with a fine Specimen Photograph.

The middle-month issue will contain a splendid Photogravure, Encaustic, Phototypie, or other process print—studies in portrait or landscape work.

An *Art Department* is introduced, with elaborate instructions on "How to see Pictures, and How to Produce them According to Art Rules." A department for "Questions and Answers" is a new feature.

An "Open Corner," for news, notes, and discussions, will be supported by the craft. The gist of all the photo. news of the world will be given. The Society Gossip will be elaborated and the system of reports improved. An able staff of foreign contributors will supply a series of "condensed" articles on all the branches of our art, to be assisted by the Editor's list of newly discovered men and women able to teach prac-

tically in art and art photography, whose writings are new to us. The Editor will contribute a special series of papers on things he observes from time to time from his office window: through his imaginary spectacles, by reflection, with his field glass, and by means of his camera. The usual variety of papers from well-known contributors will appear. Some splendidly illustrated articles are in hand, and more are being prepared. Adept and Amateur will have best attention, and for all we mean to be pointed and practical.

Some of our patrons imagine it is a drawback to a magazine to be controlled by those who are engaged in the manufacture or importation of photographic supplies. While there may be some objection to such a connection, our magazine, as heretofore, will be "free and independent." Moreover, to further and better secure independence, we shall be, January 1, 1886, settled right among the dealers and the magazines of the metropolis, and shall battle for the best interests of the art and its votaries at large.

By increasing our issue we expect largely to increase our circulation.

Will not our old subscribers appreciate our supply of double the material for the same old price and kindly send their five dollars now?

We do not wish to "cut short" any subscription, but we cannot afford the additional

expense we are undertaking in good faith, unless we are promptly paid.

Do not neglect this. If you cannot remit for the whole year now, remit promptly for a quarter or half year, so there may be no loss of numbers. We shall not print a large supply of oversheets for lag-behinds.

The subscription price is *due now* from those who wish to continue for 1886 and receive twenty-four numbers for five dollars. The current issue is sent as an earnest of what we propose to do. Shall we be upheld in it?

We give *more and better* material for the money than any photo. journal in the world. Compare and then judge.

I have disposed of my other business that I may entirely devote my time to my favorite work—my magazine—and ask for your hearty support, old patrons, and you shall be promptly repaid. With more vigor and devotion than ever I shall work for you.

Remember our *book-list*. Remember that a book or subscription to a magazine presented to a faithful employé, will bring you back tenfold before the end of the year. Books and back numbers from our "Overflow Stock" are good for such gifts.

Please remit for your 1886 subscription now. \$5.00 a year, \$2.50 for six months, \$1.25 for three months; single copies, 25 cents.

EDWARD L. WILSON,

Editor, Publisher, and Proprietor.

Up to January 1, 1886, 1125 Chestnut Street, Phila.

After January 1, 1886, 853 Broadway (Domestic Bldg.), cor. Union Square, New York.

DRY PLATES—CONTINUED.

BY THOMAS PRAY, JR.,

Ex-amateur, New York.

PEOPLE who are still interested in the dry plate, and who keep up their readings, must be amused, if not amazed, at the ideas advanced, and must become very much puzzled if they "swallow" all that is put forth, or get exasperated if they should attempt to carry out instructions sent out by the platemakers in some cases.

ALUM IN THE FIXING-BATH.

If platemakers and users were familiar with even elementary chemistry, let alone

the action on white bromide of silver, they would no more put alum, chlor-alum, or chrome alum, into the hyposulphite fixing-bath than they would put hypo into a silver bath, either negative or printing, yet we have just such formulæ going the rounds.

The proper use of the alum bath in connection with the dry plate is this: When the plate is fully developed wash it under the tap, or sousé it in a dish of water; wash it well, then plunge it into an alum bath for half a minute. Why? If the developer goes over into the hypo a little on each plate, the hypo gets stained, and in the dark-room you can't see it, and then the film on the plate gets stained; the washing will get off most of the developer, and the alum is a scavenger, and it readily picks up the pyro and the alkali, and cleans off what you cannot see, but what will show in the bottom of the alum bath, very prominently, after six or eight plates have been through; then wash again, and chuck into the hypo; now your plate will not "cockle, frill," or run off the hypo; when through with it, it can be washed off best by a *soak* of five minutes in still water, and then back into the alum bath, where it can lie five minutes or half an hour, and then let it go to the wash for three to five hours. Don't mix the developer into the alum; don't mix alum and hypo; don't mix hypo and alum. Don't carry a plate from one bath into any other *without well washing* each one every time.

Don't develop a dozen plates with an idea you can fix them just as well.

Gelatine is more peculiar than those who are workers in it; if you allow a slouchy washing, and then let the plate stand, look out for stains, *bye and bye*.

Develop, wash—alum, wash—hypo, wash a considerable—more alum, and then wash several hours. Wash in this case does not mean a shiftless soak, or a lazy slouch imitation. What you do, do well; perhaps some of the younger ones don't understand why all this pains must be taken; the old ones, "who know it all," can skip this.

The developer penetrates the film, and, if left in it, blackens or yellows the hypo, and imparts a certain amount of almost unnoticeable discoloration to the film; and this discoloration is not on the surface; and

this discoloration will increase slowly, but surely; now, if this plate be put into hypo-alum, there is a slow, steady precipitation of sulphur going on, and the already stained film is the recipient of sulphur, in addition to the pyro and other elements of the developer; and, in due time, negatives with a peculiar greasy-yellow stain in the film are the result; if sulphurous acid is used in the pyro, so much the worse; and, if the hypo happens to be acid, then we have more elements of uncertainty. Any of our readers can make an experiment in an hour which will illustrate all this: in any glass tube or graduate put some hypo solution—pour in alum solution—you will soon observe an “opalescence” or milky appearance; and a very plain smell of sulphurous acid will be apparent, and the sulphurous acid soon changes into sulphuric acid; and all of these are elements of uncertainty and very undesirable.

Now, to be certain you are right.

Be sure your hypo bath is alkaline, and, if not so, make it so with water of ammonia or carbonate of soda, and this applies to plates or prints; then do not use a hypo bath one moment after it becomes yellow; put it into a bottle, and add sulphuret of potassium in solution, and let it settle; add the sulphuret solution as long as the hypo turns black, and then pour off the yellow fluid, and keep the black precipitate for refiner. In this way you will be sure of clean, good negatives, and they will never turn yellow, or disgust you by coloring in the film, so as to prevent printing.

Let every process be thoroughly and cleanly done; a negative once done and dry is not a tractable subject for any future experiment; but if it is done well it becomes a matter of pleasant reference, and the record is beautiful prints.

Saturated solutions of hypo are not advisable for gelatine plates—one ounce of hypo to five of water is about the right thing—it does not pay to *rush* a plate either in development or fixing, and we *never* should be hurried in washing; and a dry plate should never be set on its end to be dried—set in a rack or on pins so that the corner shall drip, and let the corner be an inch or two clear of anything; so the film

may dry and harden evenly, and be clean when done.

WASHING DRY PLATES.

BY C. W. HUNT.

ONE of the minor troubles with dry plates is the difficulty of completely eliminating the “hypo.” Having had this trouble in common with most amateurs, I have thought that it might be useful to many to give them a description of the washing-pan that I have used for the last year with such satisfaction that it seems to me to leave nothing to be desired.

I had used various methods, such as soaking the plates, and frequently changing the water, washing under a tap, and washing in the trays sold by photographic supply dealers, but none of them were at all what was wanted. Soaking in a number of waters was slow, and, as usually performed, only diluted the hypo—did not eliminate it. Washing under a tap was good, but very wasteful of water and slow, as only one plate could be washed at a time. The washing-trays sold by the dealer had the serious objection that washing could not be commenced until after all the plates were developed. If washing was commenced before that, the insertion of a plate fresh from the hypo would contaminate all the water in the tray, and destroy one's confidence in the result.

The pan shown is intended to set on the top of an ordinary sink. The water runs from the tap into the space A, thence it flows in the direction of the arrows and enters the pan through small holes in the bottom of the partition B, flows over the negative C to the partition D, when it flows out through small holes in the top of the partition in the channel E, and running out of the pan at F into the sink. The water flows in one sheet, without eddies, from B to D. This can be easily tested by dropping into the channel A some soluble aniline color. Plates fresh from the hypo are put near the end D, and when the pan is full negative C¹ will be washed enough and can be removed, and the other plates shoved up to make room for the next plate to be developed. If desired, alum can be put in

a little ridge across the pan between C² and C³; it will be gradually dissolved and act on the negative toward D, but those on the other side will not be affected; or the alum can be put in the channel A.

I will give the actual dimensions of my pan, and from that others can judge what size will best suit their wants. I use plates 8 x 10, 6½ x 8½, and 4½ x 6½. The pan I have is nine inches wide where the plates lay and thirty-six inches long. The sides are one and a half inches high; the partition walls B and D are one and a quarter inches high. Partition B has sixteen holes one-eighth inch diameter, and as close to the bottom as possible. Partition D has the

PRACTICAL POINTS FROM THE STUDIOS.

RUBY LIGHT FOR THE DARK ROOM.

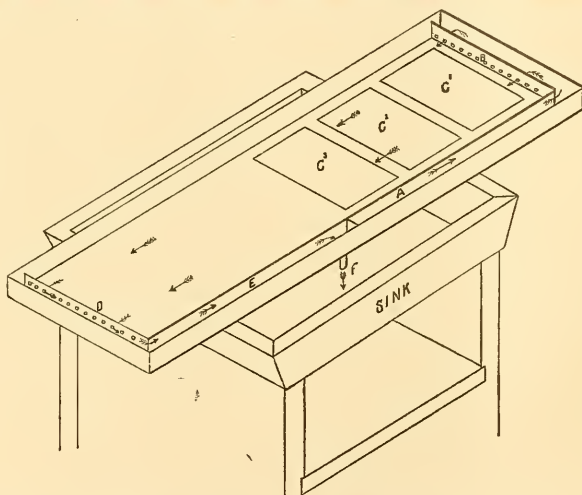
Dissolve dragon's blood in negative varnish, all it will take up, filter, and flow both sides of glass, if needed; on the inside of the room paste yellow paper; saturate it with castor oil. Such is my light, and I have no fog from light-struck plates. The paper on the inside makes it easier on the eyes.

H. BUTLER.

VERMILION, DAKOTA.

AN EXCELLENT MOUNTANT.

Take one quart of good flour, add enough water to make it the consistency of milk,



same number and size of holes seven-eighths of an inch from the bottom. The channels A and E are one inch wide. The outlet F is one-half inch diameter. The pan is made of copper, with a very heavy wire around the edge. There are four ridges running the whole length of the bottom, ⅓ inch high, to keep the plates up a little. The outlet F is brought close to the inlet A so that it can be placed in any direction on a common sink. The holes in partition B are placed close to the bottom to prevent eddies.

Any tinsmith will make one for a small sum; and I presume that photographic stock-dealers would make and keep them, if their attention should be called to them by receiving a few orders.

stir well so as to get all lumps out, and let stand for two hours; then stir it again; heat it over a slow fire until it boils; then add half teaspoonful of alum (pulverized) and boil until the right thickness is obtained; when cold add fifteen drops of oil of cloves, stirring well (cook very slow). It will never sour.

F. C. EMMINGER.

GERMANTOWN, PA.

VERY SENSITIVE PAPER FOR DEVELOPMENT, WITH BEAUTIFUL TONES.

Good Steinbach paper is washed over by means of a sponge or soft brush with the following solution:

Common salt	.	.	4 grammes.
Succinic (amber) acid	.	3	"
Gum arabic	.	19	"
Distilled water	.	300	"

Dissolved by heat and filter. This solution will keep indefinitely, and the paper may be coated in warm weather, when drying is more rapid.

Mark the side of the paper coated, and then float it upon a bath consisting of

Nitrate of silver	. . .	10 per cent.
Citric acid	. . .	$\frac{1}{2}$ "

The paper is allowed to remain five minutes upon the bath, avoiding bubbles.

If the bath is old, one-quarter per cent. citric acid must be added. The paper is dried with a moderate heat, then exposed until the image is visible in all its parts, but faint. With too long exposure the lights are made gray; with too short exposure the lights are not sufficiently intense. After exposure it is transferred to the developing solution, which consists of a saturated solution of gallic acid, diluted with 6 to 8 parts of water.

This solution must be made with cold water, or the picture will be measly.

The paper is allowed to float upon the developer, without immersion, taking care to avoid bubbles.

The development is stopped when the image has sufficient intensity.

It is now floated upon water, which is changed several times, and afterwards washed in a water-bath; and, finally, toned in a gold bath, consisting of

Chloride of gold	. . .	1 gramme.
Fused acetate of soda	. . .	30 grammes.
Distilled water	. . .	1600 "

This bath is best made the day before it is intended to use it. On using it dilute it with four or five times the amount of water.

The fixing is effected in a solution of hyposulphite of soda of 25 per cent., and subjected to the usual washing.—ADOLF SWARZ, in *Liesegang's Photographischen Almanac*, 1886.

"DRY" RECIPES.—GOOD DEVELOPER FOR GELATINE PLATES.

1.—Water	. . .	300 c.cm.
Protosulphate of iron	100 grammes.	
Tartaric acid	. . .	2 "
2.—Water	. . .	600 c.cm.
Oxalate of potassa	200 grammes.	

One part of No. 1 is poured into three parts of No. 2. A number of plates may be developed in this without renewal.

If the image appears too rapidly, add a few drops of

Water	. . .	100 c.cm.
Bromide of potassium	. . .	10 grammes.

or else dilute with water.

Too short exposures are brought up with the addition of a few drops of

Water	. . .	100 c.cm.
Hypo	. . .	1 gramme.

EMULSION.

a.—Water	. . .	100 c.cm.
Silver nitrate	. . .	10 grammes.
b.—Water	. . .	.75 c.cm.
Bromide of potassium	. . .	8.5 grammes.
Nelson's gelatine	. . .	2 "
c.—Water	. . .	25 c.cm.
Iodide of potassium	. . .	0.8 gramme.
d.—Water	. . .	100 c.cm.
Hard gelatine	. . .	12 grammes.

The water (*d*) is poured off after the gelatine has swollen; *a* and *c* are warmed to about 50° C., and poured out, stirring slowly, into *a*, then *c*. After heating half an hour, in a water-bath, *d* is stirred in.—*Liesegang's Photographischen Almanac*, 1886.

BIBLIOGRAPHY.

THE PHOTOGRAPHISCHER ALMANACH UND KALENDER für das jahr 1886, by Dr. Ed. Liesegang Dusseldorf, Germany, has arrived in good time, and is, as usual with its annual predecessors, full of items of interest for the photographer. Tables, recipes, and practical articles abound, and we wonder how the talented editor crowded so much into such a small space. Among other things, we find the following useful paper:

For Strengthening Fixed Gelatine Negatives.

No. 1.

Saturated solution bichloride of mercury, in water.

No. 2.

Water	. . .	100 c.cm.
Sulphate of soda	. . .	2 grammes.
Carbonate of soda	. . .	2 "

The well-fixed and thoroughly washed negative, after drying, is laid in No. 1, until

it gets of a silvery-white color. It is then thoroughly washed in water and laid in No. 2, in which it must be kept in constant motion until it becomes dark. Instead of solution No. 2, ammonia and water may be employed, taking care not to use it too strong.

Intensifying may also be effected with iron for this purpose:

Water	80 c.cm.
Sulphate of iron	12 grammes.
Chrome alum	2 "

The negative, if developed with pyro and fixed with hypo, may be laid in this without washing; in a few minutes it will be cleaned and at the same time intensified. If it is strengthened too much, it may be reduced by placing it in a solution of

Water	30 c.cm.
Muriatic acid	6 drops.

Another intensifier is made as follows:

No. 1.

Iodide of potassium . . .	8 grammes.
Iodine	4 "
Water	100 c.cm.

No. 2. Silver Solution.

Nitrate of silver	4 grammes.
Distilled water	100 c.cm.

No. 3.

Concentrated solution of alum	100 c.cm.
Muriatic acid	12 "
Iodine solution (1 above) .	6 "

No. 4.

Iron bath	4 grammes.
Protosulphate of iron . .	4 "
Citric acid	2 c.cm.
Glacial acetic acid . . .	2 "
Alcohol	12 "
Water	100 "

No. 3 is poured upon the wet negative, which is then well washed and placed in No. 4, to which are added a few drops of silver solution No. 2.

GOOD THINGS FROM MOSAICS, 1886.

EXPERIENCE has taught me that it pays a photographer to take good care of his negatives. I enter in a book each day every negative I take; before varnishing, I write with pen and ink the name and number on

the gelatine side of the negative; as soon as an order is given, I write the order, address, etc., in the studio register. I also write the name and number in a registered book, arranged in alphabetical order, place each negative in a stout paper envelope made for that purpose, write name and number of the negative on the envelope, and arrange the negatives on shelves, commencing with negative No. 1, and so on, so that when an order is received there will be no trouble to find the negative.—WM. McCOMB, Muskegon, Mich., p. 43.

Set up a barrel at some convenient point out of doors, or in the cellar or basement, and throw into it twenty-five to fifty pounds of old scrap zinc, which may be had for about one cent per pound. Pour all the fixing baths into this barrel, and from time to time stir up the liquid and fragments of zinc. If the barrel fills, pour off some of the liquid. At the end of six months or a year, or when you find yourself "hard up," pour off all the liquid, collect the black mud on a muslin strainer, dry it, and send it to a refiner. The result will astonish you.—H. D. GARRISON, Chicago, Ill., p. 45.

Somebody has said that a woman's greatest trouble is dust, and a man's, a woman continually brushing the same. Dust on a gelatine plate is also a source of much trouble to the amateur photographer, for no matter how carefully the plate may be brushed when put into the plate-holder, by the time the amateur has reached the place to make an exposure, dust has pretty surely settled on the plate, as he learns to his sorrow when the plate has been developed.—MARCUS H. ROGERS, East Brimfield, Mass., p. 46.

In investigating and correcting faults in dry-plate practice for others, I have sometimes encountered *brown* spots and stains, which could not be traced to insufficient fixing. As they invariably occurred with those who used alum and acid as a cleaning or graying solution, before the plates were put in the hypo, I was induced to look to it for the trouble, and found that generally these alum baths were kept in some dark, out-of-the-way place in the dark-room, usually under the sink; and being out of sight

they were generally neglected, and the solution allowed to evaporate until there was not sufficient to cover the plate entirely: then, as a matter of course, the brown pyro stain was only taken out of that portion which the alum covered, leaving the rest brown. The cure for this is simply to use enough of the solution to cover entirely the plate, always.—HARRY PLATT, Nantucket, Mass., p. 49.

If, under certain conditions, a slight deviation in regard to the illumination of the figure be admissible in interior representations, in order to set off the figures to better advantage, it must be remembered that under no circumstance, when the surrounding is a representation of landscape, should the slightest deviation of lighting be indulged in, for the figures are supposed to be in the open air, where the light is more uniform.—DR. ST. SAMNIE, Easton, Md., p. 51.

Every one is familiar, in photographing interiors, with the halo of light surrounding windows that may be in the range of the focus. A very good, if not the best, way to overcome the blurring is to put up a dark curtain over the offending windows; and, after the usual exposure necessary for the interior, to withdraw the curtain, then expose again for a few seconds, when the windows will impress themselves without the halos. If very dark and opaque curtains are used, it is thus possible to get good views of the interior and the view outside combined, provided the toning is carefully done.—RALPH DOUGLAS, West Gardner, Mass., p. 57.

Above all, avoid so placing the figures that any two are in the same vertical line. Suppose, for instance, you have a standing figure and a kneeling or seated figure in the same view, do not let the heads of the two be so placed that a perpendicular line at right angles to the base line of the picture will connect the two. Or, if you have three figures, one standing and two seated, do not place them so that the heads shall be equidistant—that is, the standing figure half way between the other two.—J. H. SUNDELINE, Philadelphia, p. 63.

There is nothing so perplexing at times, either to the operator or the sitters, as to

know how to place the hands. One is always safe when the sitter naturally places them together. They should either be thus or very widely apart; in either case they are less distracting to the spectator. If apart, and within a foot from each other, the effect is bad, and generally this is the result of not knowing how and where to place them. It is important also to notice that where the figure is sitting in a three-quarter point of view, the hands (where they come in) should not be directly below the head. This gives repose to the more important part—the seat of intellect.—E. LIVINGSTONE, Aberdeen, pp. 67, 68.

Don't use anybody's double guaranteed developer that has bromide of everything except brains in it. Whether you believe it or not, bromide actually calls for the use of more pyro, and we are all using more than *too much* pyro now. And while we are on the subject of bromides, allow me to say that bromide of soda is worth all the other bromides when soda or potash is in the developer, and bromide of ammonium is positively not allowable in some of the combinations of soda and potash. Citrate of soda is an elegant retarder, but all hands use too much as a rule.—THOMAS PRAY, JR., New York, p. 71.

Comparatively few, either professional or amateur, know that in developing instantaneous or short-timed negatives, if the developer is used very weak much detail that would be lost with a very strong developer can be brought out, and a much softer and finer effect secured. After the detail is all out, the developer can be strengthened and the lights developed until sufficient intensity is obtained.—GARVEY DONALDSON, New York, p. 73.

Make a pad of manilla paper (say, six thicknesses); on this lay your negative, face down, and smear the back with castor oil; use plenty of oil—a dessertspoonful at least to every 5 x 8 negative. Now, with a polishing iron with rounded edges, such as is used in laundries (quite hot), smooth the negative with a uniform pressure, following the path of the iron with a sponge or rag saturated with the oil. Proper oiling will be indicated by a uniform dark color all

over the back; no spots or mottling should be seen; if any are seen, continue heating and rubbing on oil till they disappear.—DAVID COOPER, Rochester, N. Y., p. 131.

I think it is Ruskin who tells us that Giotto became great and master of the great, not by any ideal principles of selection, but simply by being interested intensely in what was going on around him; by substituting actions of living men for conventional attitudes, and portraits of living men for conventional faces, and incidents of everyday life for conventional circumstances.—JOHN BARTLETT, Philadelphia, p. 137.

It has happened recently in my practice, that a gentleman insisted for himself and wife *no retouching*. His work was done as he requested. It seemed like good old times to see the bottom facts of photography accepted. When I meet that man and woman, I lift my hat with much respect, and am emboldened in relating this case of good sense.—J. F. RYDER, Cleveland, O., p. 143.

AN AMATEUR IN AUSTRALIA.

BY CHARLES D. IRWIN.

BEING advised by my physician to take a long sea voyage, I left home, May 19th, for a trip to the Sandwich Islands and Australia, taking Dr. Day, of Chicago, with me that he might enjoy a dose of his own medicine. We had long since learned not to undertake any important trip without our ever ready, quick, and accurate "special artist," the camera. We both belong to that numerous and peculiar species of the *genus homo* known as amateur photographers, but, for the sake of keeping our luggage as compact as possible we decided to carry but one outfit between us. I had been working 5 x 8 plates, but found by experience that for pleasure pure and simple, this size was almost too cumbersome and heavy. The Doctor had been using 4 x 5 plates, but these are almost too small to give really satisfying results from all subjects. We, therefore, struck a happy medium by selecting the usual cabinet size, 6½ x 4¼. We carried eighteen dozen of Carbutt

specials, this size, and did not find our trunks unduly weighted. Our camera was a Scovill box with double-swing, two movements to the front, and every possible adjustment and convenience. This was carried in a canvas-covered, leather-bound box with a Dallmeyer 6 x 5 rapid rectilinear and Morrison wide angle lens. The stops, drop-shutter, and such things occupied pockets in the same box, and a similar case carried six "Daisy" holders each containing two plates. We each slung one of these boxes over our shoulder by a snap-strap when on a tramp without the least effort or inconvenience, and when *en route* they were strapped together and carried like an ordinary, moderate sized, hand satchel. Our extension tripod was strapped with our umbrellas, or coats, when not in use, and a box in the trunk contained chemicals, pans, lamp, and all necessities for development; for we preferred to develop as we went and know that each plate was a success. It will thus be seen that our photographic proclivities really added to our impediments only the equivalent of an ordinary satchel of very moderate size; while the pleasure derived from the pastime as we journeyed—as well as the souvenirs obtained for after enjoyment—have more than repaid us for many times the trouble. We did not attempt to make any silver prints in travelling, as that would take too much time and material; but we carried a good supply of ferro-prussiate paper and our friends at home, while reading our letters, could study blue prints of the places described and thus enjoy our wanderings to a greater degree than usual.

Our pleasures began when we sailed from San Francisco on the unsurpassed steamer "Mariposa," which, in comfort and elegance, is more like a lavishly fitted private yacht than a merchant vessel. The Golden Gate had been blown wide open by the coast gale which was playing with the waves outside, and we steamed boldly out without stopping to put up the bars. In three or four days we began to approach the blue sky, bluer sea, and balmy air of the tropics. The sunny, dreamy, days melted into the most entrancing nights, with glittering skies and phosphorescent seas beneath. We seemed to breathe sentiment and could

scarcely resist talking poetry. Had there been any young ladies in the company we should doubtless have succumbed to these overpowering influences, but, as it was, we discussed developers and drop-shutters with Mr. W. G. Arms—a most genial member of the Pacific Coast Amateur Photographer's Club, who was a fellow passenger—and so conquered.

A young and very demonstrative bridal couple, who had come to be called by the other passengers, "Birdie and Ducky," did not escape so easily. I discovered them one bewitching morning entwined in each others arms, occupying a single chair in a sequestered nook near the stern; "Birdie" sitting in "Ducky's" lap reading a book of poems! Such a chance could not be missed by any one with a devotion to art. I rushed below, alarmed the Doctor, hastily set up the camera, guessing at a focus, and leaped up the companion-way as if the ship's fate depended on my speed. By this time there was a large group of interested observers at a respectful distance, with their mouths stretched from ear to ear. I shouldered the camera, as if preparing to take a picture in the opposite direction, and backed up toward our victims as near as I could. The Doctor dropped the shutter and we retreated in good order, not a minute too soon. Interest in the picture was at fever-heat, and genial Captain Hayward sent six men into the hold to dig out our trunk from among the mass of baggage and mail matter. It took them two hours, but we got our chemical box, and after turning our stateroom into a very dark, wet place—considering that we used the "dry process"—we emerged with a successful negative. The next day, giggling groups of girls, laughing men, and smiling matrons were seen all over the ship, deeply interested in numerous blue prints, entitled "Smooth Sailing;" but the happy originals of the picture were ignorant of its existence till after the voyage had ended.

Of course, various groups of officers and passengers had to be taken, and views of the ship in every aspect. The most novel one of all was a picture of the fire and boat drill. The crew are rehearsed in this every voyage, but never know at what minute it may be called. The Captain kindly informed us

beforehand and we were ready on the bridge when the alarming blasts of the whistle and clang of the bell signalled the men to their stations. They flew to their posts from every direction and swarmed up from the stokehole like bees from a hive. Almost before we knew it, streams of water were shooting from the various lines of hose on deck and the boats were swung out ready to lower. In the midst of the excitement our shutter winked, and a picture full of life and activity was the result.

We had not been in the sunny kingdom of Hawaii twenty-four hours before we had trespassed upon ground sacred to dead royalty, by climbing the fence and photographing the mausoleum in which lie the bones of the Kamehamehas. Then we drove on, up the beautiful Nuuanu Avenue to the celebrated *Pali*, or mountain pass. Here we looked over a precipice, some 1200 feet high, at the level country spread out like a map between us and the sea. From this still, sunbathed land a narrow, zigzag path ascended along the face of the precipitous mountain to where we stood—sort of a Jacob's ladder from earth to sky. However, all who traversed it were not angels; although many *celestials* were descending with their two baskets hung on each end of their shoulder-poles, looking like so many capital T's vivified. A number of native women rode up, astride of their horses, as is their custom, and we learned that King Kalakaua was also on the way. With proverbial American "cheek" we set our cameras where the royal personage could not escape their fire, and as he rode up the steep and narrow defile, we "popped" him full in the face, obtaining an excellent equestrian portrait.

We photographed the vicinity of Honolulu pretty thoroughly, including many sylvan dells where the natives love to bathe in the streams and waterfalls. It is not at all uncommon to see a bevy of Hawaiian girls frolicking in such places, or diving off the rail of a convenient bridge like so many bronze Venuses disporting in the water. At such times we found our quickly manipulated apparatus a treasure, and drop-shutters and rapid plates invaluable. Our friend, Mr. Arms, did not share our comfort

in this respect. He had a "Lancaster Instantograph"—an English contrivance which was very compact, and did excellent service, but which required a very long time to get together ready for work. After seeing the ease with which we set up, took several views, and packed again, before he was ready for one shot, he decided that "Art is long and Time is fleeting," and sold his entire outfit to a Honolulu artist who had plenty of time fully to appreciate it.

In going from Honolulu to the volcano of Kilauea, on another island of the group, we passed Captain Cook's monument, and, of course, photographed it. At one place we embarked thirty wild cattle. They were driven into the surf, lassoed, and tied to the boats' gunwales by their horns. In this way they were towed out to the steamer, and hoisted on board in rope slings by a donkey-engine. It was lively work, and a novel sight to us. I got one of the many natives, who had gathered about the ship to sell fruit, to take me off in his narrow, dug-out canoe, and paddle up near the shore, just outside the breakers. A rude outrigger at one side of the craft gave it some stability, but it was a ticklish place in which to manipulate a camera. However, by exercising great caution I obtained a number of interesting snap-shots, and got aboard the steamer again, without a ducking.

Eleven miles of the ascent to the volcano had to be travelled on mule-back. Our boxes went up and back on a pack-mule, with other baggage, and suffered no injury. Not even a plate was broken. We considered this a severe test of our system of packing, as they had a general shaking up during the twenty-two miles. We secured many valuable views on the way, but the fiery glories of the crater are beyond the reach of photography; and even the best oil-paintings can do little better than recall the marvellous scene to one who has already witnessed it. Kilauea is the largest active volcano in the world. Its crater is nine miles in circumference, and if I should attempt to describe our experiences during two nights in this deep firelit abyss, with its sulphurous steam, cracked crust, and lakes of boiling lava, I fear my veracity would be questioned by all who have never been

there. It is, in truth, a veritable, tangible, red-hot inferno!

In New Zealand we had a very interesting time; going inland nearly two hundred miles from Auckland, through a wild, unsettled country to the famous hot lake district. Most of the distance was accomplished in a Concord wagon, over the worst roads I ever saw. We found here geysers in every form, marvellous terrace formations, hot lakes occupying extinct craters, and every conceivable variety of boiling springs and volcanic phenomena. In this curious country live a large part of the native New Zealanders, or Maoris. They practised cannibalism up to within about forty years ago. We had the pleasure of seeing one old, tattooed savage, who is about ninety years of age, was formerly a cannibal, and still regrets that human flesh is no longer eaten, as he considers it superior in flavor to either beef or mutton! We photographed him outside his wretched grass hovel, gave him some tobacco, and left him happy. The women have curious tattoos in blue about their mouths, as though they had been eating very juicy blueberry pie without knife, fork, or spoon. Some of the younger men are finely formed fellows and very picturesque with their spears, bare arms and breasts, and their skirts of gorgeous peacock feathers hanging from their waists. They entered into the photographic business with evident enjoyment, and we spent several pleasant days among this interesting people, bringing away many valuable negatives as souvenirs.

In Australia we got only commonplace landscapes and city views, but we were there in an unfavorable season and our stay was limited. We always, at least, had the excitement of developing the day's work. The Colonial hotels—like most European ones—have no running water in the rooms; neither do they consider a slop-jar an essential piece of furniture. We usually disarranged all the movables in our room to provide a good place to work; then foraged in any adjoining rooms whose occupants happened to be out, for water, and often even borrowed several wash-bowls to facilitate washing the negatives, so we rarely lacked essentials. Our chief difficulty was to dispose of the

waste developer, soiled water, and such commodities. However, we usually derived much pleasure from emptying them all out of the window and speculating as to where they went as we heard them splashing below in the darkness. An amateur photographer has many joys and pleasures, as well as numerous trials that ordinary tourists know not of. But we are about to experience them all again, and, perchance "fly to others that we know not of," in a voyage around the world. If I can turn up next spring on the eastern edge of this continent with as many photographic trophies as I have gathered on our recent voyage, I shall be a happy "globe-trotter," satisfied "hypo," and have many reasons to bless the dark art.

Permanent address, care of Irwin, Green & Co., 17 Board of Trade, Chicago, Ill.

For any information regarding above trip, address, Dr. F. R. Day, 3228 Graves Place, Chicago, Ill.

MONTEREY, CAL.

THE HUMOR OF IT.

DE CAMERA, who is an amateur photographer: "Really, Miss Eveline, I should so delight to try you by the new dry-plate process." Miss Eveline, who has a healthy appetite: "Why, Mr. De Camera, it would do you no good. No, indeed, no dry plate for me, I'm always awfully hungry, you know." "But you don't comprehend. I would like to take you"—"Ask papa!" Tableaux. He had to take her, appetite and all.—*Hartford Post*.

A photographer in Oshkosh, after "taking" nearly every lady in the town, has gone "out of focus."

SHAKESPEARE, it is claimed by Messrs. Moore and Long, and others, was a solar printer, because he "held the mirror up to nature."

THE AIR-BRUSH OUTDONE.—A new photographic appliance is coming into vogue, by which, with the help of electricity, hair and freckles can be removed from the face. At the late meeting of the American Dermatological Association Dr. Hardaway said,

for the purposes named he used the irido-platinum needle, which had the advantage of being bent, and was not likely to pass through the follicle wall. The moment the follicle was entered, there was an escape of serum. One case, that of a woman with a heavy black beard, had been entirely relieved. Electrolysis with a fine needle afforded a method of getting rid of freckles. The plan was to dot the surface covered by the freckles with the needle. Get it before it is patented.

THE first time Luke Sharp, of the *Detroit Free Press*, went out to photograph with us, he forgot his plateholders. How many times he has done so since we taught him it was wrong, we know not; but he has recently fallen in with the Eastman-Walker rollholder, and may not blunder again. Some people never do when they can travel (Walk-er otherwise) on tick.

His first trial of the "new contrivance" was at London one S-u-n-d-a-y! He became so enamored that train-time came before he was aware, and he had to rush over to Paris in his slippers—that time leaving his *shoes* behind." If it isn't one thing its another, with this man of sharp practice.

He went to Switzerland from Paris, if any truth can be developed from what follows below:

"I intended to treat my camera to a trip to Switzerland. It had never had the advantages of foreign travel (it was made by the American Optical Company), and was anxious to cast its one observing eye on some mountain scenery. Now, a well-bred camera is good company, but a load of glass plates is a howling nuisance. A pocketful of paper rolls would take as many pictures as a cart load of glass—but would they work? That was the question. Experienced photographers warned me against the paper. I was doubtful about it myself, and did not hesitate to tell Mr. Walker so."

But subsequent history tells us that Mr. Luke Sharp came back safely from the land of glaciers and snow with an avalanche of exposed films, and at this time is developing some rare successes. He is interrupted occasionally by the necessity of fishing out

some of his little Sharps from his plate-washing apparatus.

THE Pacific Coast amateurs have some jolly good times together, and do excellent work. They focus from Alaska to the Sandwichers. Their field days are always enjoyable.

So numerous and varied have been the blunders committed by the members that it is said a standing reward of a hundred dollars is offered to the ingenious member who can commit any new error. The most common error is the failure to change a plate after making one exposure, and consequently attempting the somewhat confusing feat of portraying two views upon the same plate. So common is this blunder that it has begotten a peculiar expression of its own, and is dryly referred to as "conomizing plates," an expression parallel to the hackneyed method of describing a railroad collision as the unsuccessful attempt of two trains to pass each other on the same track. Mr. Lowden has one picture which he asserts that he values above any that he has ever taken. It was his first attempt, and everything happened to it that could possibly happen to spoil a picture. It was over-exposed and underdeveloped, badly printed, toned until slaty, and has hypo spots all over it. As a final catastrophe, it was almost torn to pieces in washing, and its ornaments the front page of his scrapbook. It is needless to add that it is a picture of his own house.

One of the "hired models" of the Club describes his tribulations thus:

"I have perched on a rock as a lone fisherman, climbed mill wheels to give ideas of comparative size, been towed astern of a yacht, filled up gaps in groups, and, in fact, have been *taken* as often as Passavant's dog. Between that dog and myself there is a bond of sympathy, which, not photographers, but those photographed, can only appreciate." Evidently, serving as a model has "degraded" him into a lyre.

Even in the lovely land of the Pacific subjects grow scarce and "monotonous," and a good deal of ingenuity has to be exercised to secure fresh victims. One

scheme is described by an "honorary member" thus:

"Several of our members, who pride themselves on their proficiency, thought it would be a scoop on the professionals if they could take an intangible subject—not a cloud effect, but something ethereal, evanescent, having no body and absolutely no substance—shadow point; to photograph a thought, an idea, or a sentiment, would be a sublime triumph, beating the lightning's flash, the bicycle spokes, or the race horse's feet. They concluded they would try it on one of the most baseless of subjects—something no one could see or conceive or understand. I think I deserve credit for the suggestion that the thing having the least substance or basis possible to conceive, would be the point of one of Z.'s jokes (naming a well-known member). Nothing could have less tangibility or fabric. The thought was a happy one. Gibbs, Lowden, Oliver, and Tyler all tried one day at Hospital Cove, Angel Island, to see what could be done. After some persuasion Z. perched on a rock so as to give a sky background, on Tyler's principle, and prepared to deliver himself of a fine, well-preserved, and historical pun. At the critical moment he waved his hand with a gesture of command, got off the joke, and a row of drop-shutters were snapped at him. Haste was made to the sweatbox on the *Emerald*, which does duty as a dark-room, and the plates developed. Tyler, as usual, had two pictures on the same plate. Oliver had forgotten to take the cap off, and Gibbs's plate was fogged, but Lowden caught him. The result showed what we expected, as you see. The image was perfectly spherical, a mere bubble, and even Passavant's C. I. P. plate, a Darlot lens, and McConnell's quick shutter failed to catch the point to the joke. There was no point to it. We never found any ourselves with the naked ear, but thought photography might do it. Z. was a little disappointed, but explained the failure by saying that he imported that particular joke from the old country, and it was not yet used to the California climate."

But if there is anything the members are precise about, it is *the expression* (and are not all clubs alike?).


The members spare no pains to secure it, thus giving accuracy to their work. One of them, upon being interrogated as to the manner in which he had secured such an excellent impression on his little boy's face, in a crying scene, promptly responded :

"Why, I made him cry. Sacrificed him to science!"

One of the "giant" policemen who guarded the "Old Liberty Bell," at New Orleans, last winter, handed us an 1886 diary which he picked up in the street, recently. It did not bear the name of the owner, but from the entries in it, which are as follows, it must have been the property of an incendiary, riotous, and resentful photographic "Cheap John:"

Jan. 1. Start trade for New Year by a slight fire in the dark-room. County papers please copy.

Jan. 2. Fix up case at door all day, and wear burned clothes.

Jan. 3. Notice on case: "Closed on Sunday."  pointing to alley-door.

Jan. 4. 8 for \$1.00, for one week only.

Jan. 5. Advertise gallery down the street as a fraud.

Jan. 6. No faded photographs photographed here. Prices reduced.

Jan. 7. Show picture of Miss Simpkins in case, and placard it, "Refused to pay for her pictures."

Jan. 8. Another fire. Advertise great loss; no insurance.

Jan. 9. Apparatus all stolen. Doors closed.

Jan. 10. Found again, but printer struck for higher wages. Closed by sheriff.

Jan. 11. Open again. Prices further reduced, previous to leaving town. Brush up old apparatus, and announce it as just arrived from Boston. Instantaneous process.

A MODEL STUDIO "AWAY DOWN IN MAINE."

BY W. C. TUTTLE.

LAST July my photograph gallery was burned, with contents, including several hundred valuable negatives. Since the above date a new brick block has been erected upon the same site; the top, or third floor,

I chartered for a new studio; the proprietors agreed to follow my dictations in the construction of said upper story. Having but little experience in photographic architecture, I went to Boston to procure the services



of an experienced man, and, by the way, I happened to look into Wilson's *Photographics*, and therein, on page 163, Fig. 5, I saw just what I wanted. I procured the book, and left the man. I directed the builders to read the working plan therein, every detail was followed out, and to-day the State of Maine does not contain a finer light than that under which your humble servant works.

BELFAST, MAINE.

TRANSLATIONS FROM UNUS.

Still may the photographic art
Steal rays from beauty as they start;
Yet memory needs from artist's hands
No aid that science may confer,
A truer pencil love demands,
The heart's the best photographer.

As when the sun beneath the wave
His evening beam now stoops to lave,
The floating summer tint displays
The blushing sunset, bending low;
'Tis thus in absence beauty's rays
In memory's twilight softened glow.

PICKWICK, LL.D.

—*South-Western Journ. of Education.*

OUR semi-monthly edition now supplies the craft with the "best and cheapest" magazine of photography in the world.

A PLEA FOR OVER-TIMING.*

BY EUGENE ALBERT.

I WOULD rather believe with Locke that "All our knowledge is derived from experience," than to take cold comfort in the old adage, "Experience is a dear school, but fools will learn in no other." The tuition, it is true, is sometimes rather high, but I am assured that the measure of one's progress is in the ratio of wisdom gained by failures. My first experience with development was rather dismal. I shall not inflict upon you the story of my grief, but simply say I tried all developers, condemning each one in turn. At the conclusion of my seance, a host of wan, pale-faced plates seemed to "plead like angels, trumpet-tongued against the deep damnation of abler-taking off;" and when I left that dark chamber I saw written over its door the terrible words of Dante, "All hope abandon ye who enter here." I do not blame the developers now—I blame myself—nay, like the clown in "Twelfth Night," "I am for all waters;" soda, potash, ammonia. I get the best results by the method I employ, not the agents I use; though I prefer the potash. One thing experience has taught me—that is, whenever it is possible to overtime a picture do it, and when you come to develop you won't regret it,

Make the following solutions:

No. 1.

Pyro	1 ounce.
Sulphite of soda	2 "
Bromide of potassium	40 grains.
Citric acid	40 "
Water	12 ounces.

No. 2.

Carbonate of potassa	3 ounces.
Sulphate of soda	2 "
Water	12 "

Take one drachm of No. 1 to one ounce of water, and add ten drops of (ten grammes to ounce) solution of bromide of potassium. Let the plate be in it for a minute, then pour off its solution, and cautiously add No. 2, beginning with one-quarter of a drachm to every ounce of the solution; wait two minutes before you get frightened at the non-appearance of the image; be assured if you

have overtimed there is plenty of what the philosophers call potential energy to work out its own salvation. After the two minutes are up, you may add another one-quarter of a drachm of No. 2, and keep right on developing not too rapidly. If, in adding the first one-quarter, the image comes up in less than a half minute, lift the plate immediately from the solution, and lay it in a bath of bromide of potassium, one drachm to the ounce (ten grain solution), and keep it there a couple of minutes; then, without washing, put it back in the solution, and it will work out slowly and beautifully.

Always begin with the weak developer keep a stock on hand for the purpose. Another thing which I have learned, don't be stingy or saving weak developer; you may have to pay for it in the loss of a negative. Over-timed negatives are beautiful and soft if managed in this way. I have used the most rapid plates, and given them ten times too much exposure, and yet by this method obtained the finished negatives I have; but, sometimes, you cannot over-time. Well, then, this is the way I manage: I take the plate from the holder, lay it in plain water for two minutes, covering it up, of course; I then wash it by pouring water over it, place it in solution composed of one ounce of water, one drachm of No. 1 or No. 2, and go on with the development. In nine cases out of ten it will come up like a full-timed negative. It is strange, but it is a fact, that the washing after removal from the plain water facilitates the development. If the plate should still lack details in the shadows, I lift it out and transfer it to a dish containing one ounce of water to one drachm of No. 2, and let it lie a half minute, then return it to the mixed developer. I prefer this to adding the accelerator directly to the developer.

Be sure to let the plate lie in the developer till it has density enough, but be careful not to get it too dense.

It is a good plan to develop one plate, and fix it, and see how far you have gone in intensification, then, with that experience, go back and develop the rest.

My parting advice is, use the quickest plates for all subjects, and over-time them, and you will be happy in the possession of a

* Intended for *Mosaics*, but received too late.

brood of beautiful, rich, soft negatives, and will not be haunted with a ghostly throng of pale, thin, reproachful abortions.

PHOTOGRAPHIC FACTS AND FANCIES.

WHY?

The conductors of the exhibition of the Boston Amateur Society have declined to admit the lovely pictures of Mr. Jno. E. Dumont "because they had prizes previously awarded for them." We regret such a rule, and believe it would be better for the good gentlemen who make rules for any exhibition to look over the matter with wide-angled eyes and minds before deciding upon them. Competitors should inform themselves as to what pictures have been "prized" and then do their very best to discount the prizes. Why fear *anything*?

INDIVIDUALITY IN YOUR WORK

is what we have always preached to you, fellow photographers, and now the *Nation* applies the teaching, in an article on practical literary work, when, commenting upon books and books (books with literary merit and books with none) it says, to illustrate its meaning more clearly:

"What is the difference between a colored photograph of a scene, and a painting of it, if not something that the artist gives us in addition to the bare fact—something that constitutes it a work of 'art?' If any given page from the leader of French realistic fiction differs from a perfectly non-literary and very disagreeable police report (and we would by no means affirm that they all do), is it not by virtue of what the novelist gives us of himself, *plus* his fact?"

But this something is not by any means necessarily the "personal element" as ordinarily understood. It need not be in the least an egotistic intrusion of self. Shakespeare was always realistic, never personal. Yet it was always realistic *art*, never mere colored photography. That which the writer contributes to us may be only his better eyesight and his better judgment of *what* to see. Just so far as Shakespeare *saw* more in the mad old King Lear, and the fool, and the tempest than we should have seen, just so far he imparts to us himself in addition to his

picture. Who does not prefer a fine portrait of a friend to a photograph? Yet, one may ask, Does not the latter give the fact more exactly as it is? Not so; the "fact" is what our friend really *is* to us, and this the portrait may give with infinitely more truth than the skewed and staring photograph. His sight and insight into this is what the artist contributes of himself. Things in themselves we do not know, and cannot know; least of all can a camera get at them, or a police report. Things as they seem, superficially, the extremist non-literary realism may give us; but when we require to know things as they are—as they are to *us*, in all their relations, ordinarily seen, or ordinarily unseen—we go to art, that is (in the case of written products) to literature, either realistic or otherwise. Compare the statistical history of a country in a Government report with the narrative of one of our best and most impersonal historians. In both cases we have the realistic facts, but the historian adds his power and habit of reading between the lines of events, of comprehending what he apprehends, of divining causes and explaining results; and these, or some measures of these, he gives as permanent contributions to our intellectual life."

Photographers, do you focus? If not, turn over the picture, and you will get the meaning better.

AS THEY WERE.

Compare the list of prices of dry plates below, cut from an 1876 advertisement in our Magazine, with the lowest 1886 rates.

List of Prices.

Size.	Price per Doz.
3 $\frac{1}{4}$ x 4 $\frac{1}{4}$	\$1.50
4 x 5	2.00
4 $\frac{1}{4}$ x 6 $\frac{1}{2}$	2.75
4 $\frac{1}{2}$ x 7 $\frac{1}{4}$	3.00
5 x 8	3.75
6 $\frac{1}{2}$ x 8 $\frac{1}{2}$	5.00
7 x 9	6.00
8 x 10	7.50
10 x 12	10.50
11 x 14	12.00

Larger sizes made to order.

A FACT AND NO FANCY

That the prices for photographs are proportionately reduced.

DID DRY PLATES DO IT?

No, by no means. The tendency of all things is downward. Even the millionaire must take less interest than in 1876.

Now is a good time to remit for your subscription to our Magazine. 24 for \$5.

BETTER LATE THAN NEVER.

The November *Art Union* begins the republication of Mr. John Burnet's essay on "The Education of the Eye." Ah! this is good! We did it in our volumes for 1867 and 1868, and partially in Wilson's *Photographics*, and are glad to see the "artists" alive to the necessity of it, though at so late a day. How mutable are all things!

PHOTOGRAPHIC NOM DE PLUMES.

Mr. Vidal in the *Moniteur* suggests the following list of names for the different processes of reproduction born of photography since the last thirty years, and which, he says, may be conveniently divided as follows:

HELIOGRAPHY—HELIOCHIMOGRAPHY.

Direct impressions on paper with the salts of silver, gold, iron, and the platinum-carbon process.

HELIOPHALANOGRAPHY.

Mechanical impressions upon plane surfaces with fatty inks with previous aid of light: Photo-lithography, photo-zincography, photo-gelatino-graphy.

HELIO-ENGRAVING.

Mechanical impressions with fatty ink or gelatine upon plates, with sunken lines or in relief, with the aid of light: Line engraving, stereotypy, and Woodburytypy. It may be remarked here that for the word photography, which does not convey what it means to indicate, we propose the word photo-gelatino-graphy, or more shortly gelatinography; in this last case, however, nothing indicates the intervention of light. The following is a list of the terms that have been created up to the present time. Heliography, photography, photolithography, lithophotography, alberttypy, heliotypy, photoglypty, phototypy, phototypography, helioengraving, photoengraving, Woodburytypy, colotypy, helioglypty, gelatinography, autotypy, pantotypy, panotypy,

photochromy, photozincography, printing with fatty inks, and besides, as proposed by Mr. Davanne, helioplanography and photoplanography.

If to these twenty-three terms are added all the different kinds of engraving made without the use of light, we arrive at a grand total of about sixty-six different nomenclatures, which many connoisseurs would find it difficult to define. If the names used by our early sun artists were added, the list would be more than doubled.

SOCIETY GOSSIP.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—The regular monthly meeting of this Society was held on Wednesday evening, December 2, 1885, the President, Mr. Joseph W. Bates, in the chair.

The Secretary called attention to circulars which had been received from The Hull Amateur Photographic Society, announcing an Exhibition to be held in February, 1886; also a prospectus of the newly organized Camera Club, of London.

The death of Mr. Wm. G. Platt, a member of the Society, was announced, and on motion of Mr. Coates, the Secretary was directed to enter a minute of the same on the records.

The resignation of Mr. Wm. T. Elliot was presented and duly accepted.

The Exhibition Committee reported most favorable progress, applications for space having been received up to this time from about eighty exhibitors, and the number increasing daily. There is every indication also that the Exhibition will excel in *quality* as well as *quantity* of work shown, and it will undoubtedly be the most important affair of the kind ever held in this country.

Among the well-known photographers who expect to exhibit, many of whom have carried off prizes and medals at important exhibitions, are:

John E. Dumont, of Rochester, winner of several prizes at the late New York Exhibition.

James E. Bush, of New York.

P. H. Emerson, of England, winner of important amateur prizes.

Lieut Chas. E. Gladstone, R. N.

Capt. J. Peters, R. C. A., Canada, who will probably send his celebrated "war pictures" taken during the recent Northwest Rebellion—many of the exposures being made during action and under fire.

J. P. Gibson, of Hexham, England, has sent twelve pictures, five of which have taken eight medals or prizes, one picture having taken three.

Messrs. G. West & Son, and

Messrs. Symonds & Co., of England, who are both celebrated for their yacht pictures, and have taken numerous medals at English exhibitions.

Col. J. Waterhouse, of Calcutta, India.

W. H. Jackson & Co., of Denver.

W. K. Burton, of London.

W. W. Winter, of Derby, England.

J. F. Ryder, of Cleveland, O.

George Bankhart, of Leicester, England.

The Lehigh University of Bethlehem, Pa.

The names of six persons were proposed for active membership, and referred to the Committee on Membership.

Nominations for Officers and Committees for 1886 were made.

On motion of Mr. J. G. Bullock, it was resolved, that the President request the Judges at the Photographic Exhibition to select the presentation pictures for the coming year from the prints that may be exhibited by members of the Society at that time, and that any of the existing rules which conflict with this arrangement be temporarily suspended.

A question in the box asked: "What sort of paint or varnish is the best with which to coat the inside of washing-tubs for prints?" Asphaltum varnish, especially that known as "Brunswick Black," was recommended, as was also paraffine.

Mr. S. C. Nash, of Harrisburg, showed his "Acme Camera and Changing Box." This camera is most ingenious in its construction, being particularly adapted to the wants of artists, tourists, and others to whom saving of bulk, weight, and frequent changing of plates are important considerations.

Twelve 4 x 5 plates are contained in the camera-box, somewhat in the same way as the pictures in a revolving stereoscope, so that they can be brought into position for exposure by turning a knob at the side.

Any plate of the lot may be exposed at will, without regard to the order in which they may be placed, an index-card at the side showing exactly which plate is in use. On this card the record of exposures is kept, it being removed when the plates are full, and kept for future reference. By a simple contrivance, a $\frac{1}{4}$, $\frac{1}{2}$, or the whole of any plate may be used, the division being made horizontally or vertically as most convenient, so that on twelve plates from twelve to forty-eight pictures may be taken. A double shifting front allows the lens to be placed exactly opposite any part of the plate that is to be exposed. All the parts, including the focussing cloth, are attached to or contained within the camera, so that nothing can be mislaid or left behind.

Mr. Cooper, representing the Eastman Dry-plate and Film Co., was present, and explained many of the details of working with paper negatives. He showed a number of excellent prints from instantaneous negatives made in New York harbor, also an enlargement to nearly life-size of a head taken from a card-size paper negative. The enlargement was made on Eastman's bromide paper, especially intended for enlargements. The details were perfect, with no signs of grain, and the color a rich black, equal to a platinum print in this respect.

Mr. Cooper then requested the members who had used or experimented with the negative paper, to give him the result of their experience, and name the faults, if any, that they had found therewith. A cause for dissatisfaction seemed to be the necessity for oiling to render the negative transparent. This necessity, he explained, was not absolute, as prints could be made without oiling; this, however, increased the time necessary for printing. He then repeated the directions which he has before given at the meetings of other societies, emphasizing the statement that in the majority of cases the failure to oil successfully is due to the iron used not being sufficiently hot; and pointing out the advisability of always squeezing the washed negatives face down on pieces of hard, polished, black rubber, using both sides of the rubber sheet for the purpose, thus having two negatives occupy the place of one.

Mr. Fassitt asked: "Why do you recommend so large a proportion of pyro to the ounce in your formula for development?"

Mr. Cooper said, "my reason is to prevent the necessity of repeatedly renewing the developer. I find that with the large quantity of sulphite of sodium prescribed in my formula, the deposit of pyro seems to be under strong control, so that I have developed very soft negatives with an experimental developer containing ten grains of pyro to the ounce, and without changing the formula in the least proceeded to produce negatives of every shade of quality from softness and brilliancy to absolute opacity and disagreeable harshness. Thus showing that the quality of a negative is not so much dependent on the strength of the pyro as on the judgment used in controlling the result. I found that by using a strong solution which would start the negative almost immediately, and seem to build rapidly all over, I could get extreme softness by removing the negative to a dish of plain water when it appeared to be about three parts developed, the action would continue while the plate was soaking, with the result mentioned. If, however, it was allowed to advance to complete development, it would be a strong, slow printer, continued development would give increased intensity and harshness, etc. The same developer, however, could be used repeatedly for the production of soft pictures by adopting the method described, and thus save constant mixing of new solutions.

It was asked if paper negatives could be used for solar enlargement.

Mr. Cooper thought they could. A doubt being expressed whether they were sufficiently transparent, Mr. Cooper pointed out the enlargement which he had shown on bromide paper, and suggested that that material be adopted for the purpose, as it was much more sensitive and could be readily used in the solar camera or with any other enlarging apparatus.

Mr. McCollin referring to the pictures shown at the last meeting, taken at night by the light of a lightning flash showed two interiors taken by lamplight; one coal oil lamp being used in one case and two in the other. In comparing these pictures

with those made by lightning, Mr. McCollin said that all were taken with the same camera, the same lens and stop, and on the same make of plates. The lamplight negative had an exposure of seven hours; the exposure for the lightning pictures was estimated as $\frac{1}{300}$ th of a second, though it had been stated that the duration of a lightning flash was $\frac{1}{1000}$ th of a second. Assuming the exposure to be $\frac{1}{300}$ th of a second the exposure of the lamplight picture may be calculated to be 7,560,000 times as long as the other. The negatives were made by Mr. A. S. Barker, of Philadelphia, and were excellent of their kind.

Mr. Walmsley showed an English dark-room lantern known as the "Paragon." The lantern was triangular in shape, two sides being of ruby glass and one of tin. The light was supplied by a coal oil lamp, which though small was constructed so as to give an excellent light whose intensity could be regulated by a key without opening the lantern. A candle in a spring socket could also be used when preferred. Arrangements were made for ventilation to prevent overheating when the oil light was used.

Fifty members and six visitors present.

Adjourned.

ROBT. S. REDFIELD,
Secretary.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.—The regular monthly meeting was held at the Association rooms, Thursday, December 11, 1885, President Smith in the Chair. The minutes of the last meeting were read, corrected, and approved.

The Committee on the prize picture for December recommended that one month's further time be granted to competitors, because of the bad weather prevailing during the past month. Granted.

The Committee on Exhibition recommended that the proposed exhibition be postponed until March, the season having been so cloudy and rainy that the members had not been able to do any printing for the past two months, and that it would be impossible to make a good showing of prints before March. After discussion, it was decided to postpone the exhibition until the first part of March.

The report of the Committee on Membership being favorable, Messrs. J. W. Stanford and C. L. Goddard were elected members.

It was resolved that all officers of the navy stationed on the Pacific Coast should be eligible to membership as non-resident members, upon the payment of the regular three dollar non-resident fee.

On motion several periodicals were subscribed for.

The Corresponding Secretary read several letters from American and foreign societies, and passed around a large number of prints sent to him for exchange. A letter was also read from Mr. Edward L. Wilson, enclosing a letter from Prof. C. Piazzzi Smyth, the Astronomer Royal of Scotland. Mr. Wilson had sent to Prof. Smyth a large number of views made by the members of this Association, and used by Mr. Wilson as illustrations in the *PHILADELPHIA PHOTOGRAPHER*. Mr. Smyth's letter being very complimentary, the Corresponding Secretary volunteered to send that gentleman a set of later views, and several members promised to contribute thereto.

Four or five members expressed their intention of sending views to the exhibition of the Philadelphia Photographic Association. On motion, the whole matter was referred to the committee heretofore appointed.

Dr. Passavant exhibited a large number of whole plate and 8x10 transparencies, made on chloride plates of his own manufacture. These were greatly admired, and considered by all the members as being the best specimens of this class of work ever exhibited.

Mr. Brooks passed around for inspection several very remarkable specimens of enlargements. In these enlargements a half-inch figure is successfully enlarged to five or six inches, and the resulting picture is sharp and clear. One view was taken from the dark-room window with a detective camera, and is a picture of a young lady sitting at a back window of an adjoining house evidently unconscious that her picture is being taken. The head is not over a third of an inch in diameter, while in the enlargement it is at least two and a half inches. The expression of the face and every fold

of the dress are perfectly portrayed. How surprised that young lady would be if she ever saw that picture.

Mr. Brooks uses a contrivance on the principle of a magic lantern, making a large positive and a negative from that by contact. His apparatus is simple but effective, consisting merely of the two front lenses of an opera glass, and a lamp.

Several unique and exquisite designs for Christmas cards were shown and described.

After a lengthy and enjoyable meeting, the Association, on motion, adjourned.

W. B. TYLER,

Cor. Secretary.

THE MINNEAPOLIS AMATEUR PHOTOGRAPHIC CLUB.—An amateur photographic society, of twenty-five members, which we hope soon to increase to fifty, has been organized in Minneapolis, Minnesota, called the Minneapolis Amateur Photographic Club.

C. A. HOFFMAN.

The Minneapolis *Evening Journal* gives us the following concerning the new club: The Amateur Photographers' Club gave an exhibition of their work last evening, December 7, at their clubroom, in the Windom Block. The pictures included views about the city buildings and other structures. A magic lantern exhibition was also given. Similar entertainments will be given every Monday evening.

We trust the organization of the Amateur Photographers' Society is not what has played such dreadful havoc with the regular profession. If so, we hope the boys will keep right along in their work. By Christmas-time there will be such a slaughter of prices that the sitter will be furnished his photographs free, together with a ticket in a lottery, and a chromo as an extra inducement.

TAKE IN THE GIRLS.—We are pleased to chronicle the organization of an amateur photographic society in Minneapolis. It consists, of course, of those of our citizens distinguished for their beauty, who desire to carry each other's pictures down to an admiring posterity. They exchange their pictures with those of other clubs in other localities, so that the light of their countenances shall not be circumscribed. But we

suggest that the scope of the society should be enlarged. Minneapolis has numbers of beautiful women, worthy to keep company with the most illustrious Apollos of the new society. They should be invited to become members, too—honorary members, if nothing more. No galaxy of beauty is worth a rush in which the ladies do not form a conspicuous feature.

THE OPEN CORNER.

To this department of our magazine we welcome all friendly correspondence and discussion of topics which pertain to our art and its development, and trust that the "Corner" may be found a very useful one, as well as a convenience to our readers. Please "boil down" what you have to say and be intensely practical.

IN a German journal, Dr. Vogel has published a photographic article bearing this title, "The Yellow Fever." It discusses the yellow color of prints, which, it is said, is becoming more and more common in Germany. The author recognizes several causes of this phenomenon, which lowers the commercial value of so many photographs for sale by the dealers. In the first place he names *incomplete fixing*; second, insufficient washing, and third, the dampness of the place in which the prints are kept. This last cause has the effect to bring about a slow decomposition of the albumen, with production of sulphuretted hydrogen (arising from the sulphur which exists in the natural state in all albumens), and the formation of sulphate of silver. On the other hand, an English correspondent, who does not give his name, declares that he has restored faded prints by exposing them for some time to the sunlight.

A dealer in London offers for sale pyrogalllic acid in the form of small compressed plates. They have about two square inches of surface divided into twenty-five small squares by indentations which allow one or several of these small squares to be detached. The entire plate weighs exactly 100 grains and consequently each small square, four grains. In this way the photographer can measure instead of weigh the quantity of pyrogalllic acid to be used; this is especially

advantageous in travelling and for outdoor work.

THE Scovill Mfg. Co., of N. Y., supply a much more convenient form than this in their "Pelletone Pyrogalllic Acid Tablets," which are in shape like the "compressed pills" sold by druggists, and weigh exactly two grains. All such forms, of course, take longer to dissolve than ordinary pyro.

DR. PHIPSON, in the Paris *Moniteur*, says: "The assay of paper commences seriously to attract attention in different countries. A rapid and sure method of determining the quality of a paper, even approximately, may prove very useful in photography. The best thing to do is to examine all the samples in the same manner, and submit them to a series of chemical and mechanical tests. First, their *force of resistance* is determined—that is to say, the weight that a narrow strip can support before breaking. Good paper submitted to *ebullition* in water does not change; whilst bad paper falls to pieces. Paper sized by means of *animal matter* yields to water an extract which, with mercurial chloride followed by caustic soda, gives a yellow precipitate which *blackens* when heated in the liquid; this does not occur when the size is composed of *vegetable matter*. The quantity of *potato starch* is judged by the intensity of the blue color produced by plunging the paper into a solution of iodine. *Acid* or free *alkali* in the paper is easily determined by boiling the paper in distilled water, and trying the liquid with test papers. The quantity of *ash* left by a sample of paper is important to determine. Papers of very good quality may leave as much as 1 to 1½ per cent. of ash, but not more. Such are the most simple and useful modes to which we may have recourse." We suggest all these points as useful to those who would be sure that the cardboard they use is pure and good.

The editor of the *Photographic News* has recently written an article on a subject of the very greatest importance, to wit, the packing of dry plates. It appears that in a great number of cases, gelatino-bromide plates that have been kept unpacked for more than six months are more or less deteriorated either by dampness or vapors coming

directly from the packing or passing through it. The author of the article proposes to use sheets of tin or lead. He places two sheets one over the other, care being taken not to let them slip, and then envelops them in a thin sheet of tin or lead foil. Three pairs of plates thus treated may be placed together, and the whole covered with a metallic sheet. These thin sheets of tin or lead are not expensive, thoroughly protect against light and dampness, and give out no gaseous emanations. By using them in the manner described above, the metallic surface comes in nowise in contact with the sensitized silvered surface. Already dealers offer metallic boxes, lighter than those made of wood, and less porous, made expressly for packing plates.

MR. W. JEROME HARRISON, member of the Geological Society of London, has written a very interesting article on the value of photography applied to geology. The author remarks that whilst the public in general see only in photography a mechanical art for portrait-making, we know to-day that it owes its important position as much to its admirable applications to science, architecture, mechanics, astronomy, meteorology, anatomy, etc.; he then shows that the application of photography to geology has given results of the greatest importance. It has allowed Mr. Prestwich, Professor of Geology at Oxford, to corroborate the observations made in France by M. Boucher, de Perthes, and Dr. Rivière relative to the flint instruments of prehistoric man, and to the bones about which doubts have been raised, by having them photographed on the spot at the moment of their discovery.

Photography has also enabled Dr. Johnston Davis, another learned geologist, to obtain an important series of observations on Mt. Vesuvius, where the geological photographs permit one to follow in detail the changes of level, etc., produced by the volcanic energy.

The author has limited himself to these few examples, remarking, however, that it would be possible to fill a large volume if we wished to enumerate the numerous cases in which photography comes to the aid of the geologist, either in his scientific investigations or in practical applications.

Viscount Landreville, a distinguished amateur photographer, has made some experiments with sulphite of soda for fixing positive prints, with which he is well satisfied. He recommends, however, to use the fixing bath but for a limited quantity of prints. If, says he, you have two hundred prints to fix, put fifty only in the dish, allow them to remain twenty minutes, and, after taking them out, throw away the sulphite. Pour some more of the sulphite into the dish, and place fifty prints in it, and so on with the rest.

Magnificent results are thus obtained, whilst if the same bath was used, although abundant enough for the two hundred prints, the last two sets would acquire a disagreeable yellow tone.

THE DEPARTMENT OF ART.

INTRODUCTORY.

One of the great objects we have in multiplying the impressions of our magazine is to secure more room for the dissemination of art-knowledge among our readers. As one of our correspondents, "thirsty for more knowledge" in this direction, puts it in a recent letter: "It is well enough to *tell* us to study the works of the old masters, but how many of us have the opportunity? *Give it to us.*"

We have, therefore, arranged to supply during our coming volume, not only a good deal of general information upon art as applicable to photography, but have arranged for three special series of papers, the objects of which shall be to make it very plain "How to see Pictures," and "How to Produce Pictures according to Art Rules," by means of photography.

One series will be by Xanthus Smith, Esq., one of the famed artists of Philadelphia; a second series by George Hanmer Croughton, Esq., and a third by the editor of this magazine.

Mr. Smith's experience as a scene painter in connection with his venerable father, Russell Smith, and his knowledge as a skilled amateur photographer, particularly adapt him for this enterprise.

Mr. Croughton grew up from photography, to be a painter, and having a thorough,

complete knowledge of both arts, is most competent to teach.

Our own work will consist of a collection of "Art Notes and Hints," and all three series will be carefully and elaborately illustrated. No expense whatever will be spared to make them thoroughly practical and satisfactory to the earnest art-student.

Our hope is that they may be productive of much good.

We were prepared to *argue* the case even, so earnest are we in this matter, when we find the words we would say more deftly said by our noted co-worker, Mr. H. P. Robinson, in the 1886 edition of *Liesegang's Year Book*.

Hence we quote from him to give power to our introductory paper. In our middle-month issue we shall begin the series promised from our more skilled coadjutors.

Mr. Robinson's letter to his German compeers is headed "Art and Photography." He says:

"The invitation of the editor of *The Photographischen Almanac*, to give my contribution to its pages, I have accepted without clearly understanding just what might be of interest to my German readers. But I do not doubt it shall be my favorite theme, to wit, the application of art to photography, or rather the possibility of producing artistic pictures by aid of the camera instead of the brush—I treasure both means as aids to artistic conceptions. I will not take your time with argument to prove that photography is an art. We shall for the present take this for granted, although the question has been disputed for years. It is not long since I read in an American journal, 'photography is no art, and any one who uses a camera is not an artist.'

"If this very superficial remark were true, it would be greatly to the discredit of some of our most distinguished artists who do use the camera.

"It is an acknowledged fact that many photographers, as well as many painters, are by no means artists; but that has nothing to do with our question. It is not granted to everyone to be an artist, but almost any one can learn the mechanical part of photography and drawing; and such are the very first to thrust forward their immature pro-

ductions before they have acquired sufficient knowledge to perceive how very crude their effects are.

"It is strange that for forty years so few photographers have thought it of any value to have their technical and chemical knowledge guided by the lamp of art knowledge.

"During the last few years great progress has been made, especially amongst German photographers, and the work is generally confined to works of small size. I have not seen many large size pictures which embody a thought—that is, say something; but time will effect this soon. At present, very few strive to be original, and hence nothing else than a lack of original work can be expected.

"This naturally leads to the question, Is art so difficult that the photographer shuns her entirely, or does he care less about art value, composition, light and shade, expression, and strive after perfect sharpness and smoothness, that terrible perfection of technique?

"As already remarked, there is no doubt that there is growth in the direction of art going on amongst the photographers; a feeling after it; but it has not yet borne many blossoms; the refreshing showers of art culture are yet needed to enable it to take root. It is true that some few photographers, who I might say are rating it highly at one-quarter per cent., who possess a knowledge of the principles of art, and know how to make use of it; others have endeavored to gain an acquaintance with art by studying the rules laid down for effect in picture-making, but the principles so acquired are so manifest in their application, and the finer feeling for beauty appears to be lost, giving the impression that the operator is more anxious to display his learning than to produce artistic beauty.

"The majority of the votaries of our art seem to have no further idea of the needs of photography than the exposing, developing, and fixing of the plate. The ease with which this may be effected, by the gelatine process, has increased this class very greatly. I can only speak of my experience in England, by the number of bad operators which loom up every day before our eyes is a greater number than ever.

"This would not be so bad, if photography in this direction were followed only as an amusement, and distributed amongst their friends or family circle. But they are not content, and must send their productions to the Expositions, so that the very few good artistic pictures are overwhelmed in a flood of indifferent material, which brings the art into discredit.

"But there is another side to the question. I do not think that any other land possesses so many dilettanti as England, and from these we expect the highest aims in art. For the tradesman is so occupied with his business to earn a livelihood that he has seldom any time or desire to step out of the daily routine of portrait-taking; but the amateur, who looks on photography as an amusement for his leisure hours, devotes himself to the study of the art principles involved, his general education contributing much to this end. Year by year, we find, in the pictures which are sent to our exhibition, subjects which, if not perfectly original, have yet the stamp of newness of idea as regards selection, proving conclusively that they are not the result of blind chance, but of well thought-out endeavors in the direction of art.

"In conclusion, permit me to say that, although the aims of photography are widespread, the chief endeavor is the production of pictures, and that the technical knowledge involved in the making of a photograph is only a small part of what is demanded for creating pictorial effect."

We shall not need to use further argument than this for our course. Words and works shall follow to prove the justness of our cause.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

In your *Mosaics* for 1885 I find this, page 104, "any amount of density could be obtained and by the addition of a few drops of a *three grain* solution of hypo in water to every three ounces of developer full details could be secured in an instantaneous exposure." Is that correct? Was it hypo?

We should like some of our readers to

give us their experience, briefly, in answer to this, in time for our next issue.

MISS LIZZIE HARDING writes to know if our negatives of Petra, from which the engravings in the November *Century* were made, were on wet or dry plates? Miss Harding has probably never worked the wet process, or she would fully agree and understand that but for the dry process our negatives of Petra would have been an impossibility. They were made on Carbutt's "B" plates, and developed in Philadelphia about eight months afterwards, and after some 11,000 miles of travel in all sorts of climates and by all sorts of means.

"ALASKA" asks for some Niagara photographer in winter to give him his experience in developing ice and snow views.

CHAS. F. HENRY.—Very beautiful negatives from oil paintings can be obtained by thoroughly washing the plate after the development with iron, with great abundance of water and without fixing at all, taking care, however, to varnish the negative when dry. Such negatives although they look weak give excellent copies. The well-washed film of iodide of silver is unaltered by the light of the sun, and by retarding the action of the light furnishes very soft and extraordinarily beautiful prints. Try it. Of course, we mean wet plates.

S. A. W. says that it troubles him a good deal to prevent his film negatives from adhering to the glass after they are dry. How shall it be prevented? Mr. Eastman suggests that a flat surface of ebonite or hardened caoutchouc is preferable to glass.

CARL SOULE wants to know, "which of them all is 'the best' or 'most excellent' pyro developer?" He will find the following A 1:

- | | |
|-------------------------|-----------|
| 1.—Concentrated ammonia | 7 c.cm. |
| Bromide of potassium | 2 g. |
| Water | 320 c.cm. |
| 2.—Pyrogallie acid | 2 g. |
| Water | 320 c.cm. |

For proper exposures equal parts of the two solutions are used; for short exposures add more of No. 1; for overexposures increase No. 2.

SYBIL S. wants "a solution for reducing negatives that are too intense." Please try the following:

Alum	1 ounce.
Citric acid	1 "
Ferrous sulphate	3 ounces.
Water	20 "

As the salts of iron oxidize, the solution becomes more active. And, hereafter, do not hurry the development of your plates so much.

JULIA, of St. Paul, writes: "I am, thanks to Wilson's *Photographics*, getting on very well with photography until I come to *that nasty, sticky varnishing, and that I hate*; please give me some hints." Well, Miss Julia, St. Paul taught patience. Try it, then.

The film, after fixing and aluming should be perfectly dry before applying the varnish, and this is what requires the most care. The plates must be washed a great number of times in order to eliminate all the soluble salts, then thoroughly dried where there is no dust. The varnish should be filtered and also kept away from all dust. Finally, it should be poured on the middle of the plate and in such a manner as to coat it uniformly. Varnishing the negatives is doubtless a great protection, and if it has been well done adds to their lives and increases their value.

OUR PICTURE.

WE have chosen the lovely child-picture which graces our present impression from a number of others in preparation, because of its peculiar appropriateness as a new year picture.

What *could* be more pleasing for the opening of a new volume and a new year than the picture of a child?

Thanks, then, to Mr. James Landy, the renowned Cincinnati child-portraitist, for his kindness in supplying us with the negatives from which to print "our picture." We consider it one of the best productions of his studio.

Always a lover of children, and most successful in securing their pictures simply because he understands his subjects, Mr.

Landy is constantly studying up methods for making their portraits more picturesque. An entirely new element is introduced in the present instance by means of the background, by which a soft, atmospheric effect is obtained, which is very lovely.

Owing to the bad weather of November, since which the pictures were printed, Mr. Landy was unable to send us some special negatives which he proposed to make for us, and rather apologetically says: "I was obliged to take what I send from my regular work!"

No apology is needed. The pictures before us are delightful, and will be found well worthy of study, until Mr. Landy betters them.

Just as in the present instance, so during the year, we shall endeavor to procure such embellishments for our numbers as shall be useful to our readers as studies. We feel that we have some happy surprises in store.

"One picture cannot teach much," we have been told, but that is not true. One picture has been known to turn the course of many a photographer, and led him to become an artist. We are told by Trench that "there are cases in which more knowledge of more value can be conveyed by the history of a word than by the history of a campaign." And so, often more can be conveyed, of æsthetic value, by one picture than can be learned from a whole exhibition.

Remember the work of our Berlin friends and of Salomon a few years ago. How they changed the whole phase of photography the world over.

Emerson has characterized language as "fossil poetry." So, then, may our monthly pictures become, if you will, "fossil" *art* for you.

Just as in some fossil, curious and beautiful shapes of vegetable or animal life, the graceful fern or the finely vertebrated lizard, such as now, it may be, have been extinct for thousands of years, are permanently bound up with the stone, rescued from that perishing which would have otherwise been theirs, so, in our pictures you may, if you get into their meaning, find suggestions and aids that will help you to grow in art, and to become more and more famous in your

work; more and more joyous in following it. Such is our hope.

And now we commend all this to your careful thought, with the desire that the pursuit and knowledge of art may always keep you as fresh and joyous as the darling little face given us to study.

Mr. Landy desires us to say that the negatives were made on Cramer's plates; and that we may avoid a burdensome questioning, permit us to say that our prints were made upon the well-known N. P. A. brand of paper supplied by Messrs. E. and H. T. Anthony & Co., New York.

CORRESPONDENCE.

DEAR SIR: Yours of the 9th inst. has just come to hand inclosing letter from Prof. C. Piazza Smyth, of Edinburgh. I am very glad that the photographs were put to such good use, and I know that all the members of the Society will feel the same way. You may be sure that I shall make the most of the letter at our next meeting.

It has always been my opinion that one can do the greatest good in photography by interesting scientific men in the art, and I have always carried out that theory. There is so much work that photography can accomplish in the hands of educated men, when under the guidance of science, that every amateur at least should feel it his bounden duty to seek the acquaintance and correspondence of such men as Herschel and Smyth, and it will soon be discovered that each can be a help to the other.

I shall write to Prof. Smyth, and send him another batch of views, and shall also beg him to correspond with us, and give us the advantage of his ripe experience.

Everything is rather quiet in California just now. The rainy season is upon us, and it is getting late in the year for instantaneous work.

We are quite busy getting ready for our exhibition, which, I think, will be a success.

If I can ever get the time, I have several articles which I think will be of interest to your readers. The article on instantaneous work is at a standstill, as it is impossible to get prints from any of the members till after

the exhibition. When that is done with I shall have no difficulty in procuring the views I require. I also intend to describe my instantaneous detective box, but will wait awhile, as I expect to make many improvements; and besides this, three of our most ingenious members are at work on a new detective box which, I think, will be a great improvement on mine.

I wish to thank you for the pleasure experienced in reading your article in the *November Century*. I have read it through half a dozen times, and it is still on my table. What a glorious experience; what difficulties, and how well you overcame them. I certainly congratulate you.

Will always try and keep you posted on things photographic that come to my notice.

Very truly,

W. B. TYLER.

SAN FRANCISCO.

GERMAN CORRESPONDENCE.

New Stained Albumen Paper—Obneretter's Emulsion Paper—New Application of Azaline Plates—Printing with Development—The great Assembly of Scientists in 1886—Exhibition of Scientific Photographs in Berlin.

For a long time all photographs have been copied on rose-tinted paper; only moonlit landscapes, which are sold in Venice, are copied on blue ground. Recently, Mr. Beyerle has shown a number of landscapes copied upon colored albumen paper. This paper, from a factory in Dresden, has, in some pictures, a violet tint; in others, a bluish-green ground, which, by evening light, has the appearance of sky-blue. It is thought that the paper affords a pleasing tone, although it is acknowledged that here and there the color is somewhat displeasing. Pictures upon entirely white ground are somewhat cold, hence the desire to relieve the harshness by a neutral tint. At first a pale rose, or, what is called *pensé*, was selected, because it gave in portraits a resemblance to flesh tints. Now this was all well enough, but, by-and-by, its use began to be extended to landscape subjects; so that at present it is used for almost every subject. It is true, artists draw their

sketches on all sorts of colored paper, but they never make use of pink or rose.

Another novelty in photographic process, attracting much attention, is Obernetter's gelatine emulsion paper, which is not a development paper, but prepared with chloride of silver emulsion, which blackens intensely in light; so that the process of copying is like that of silver albumen paper, the degree of sensitiveness, however, being threefold greater. This sensitiveness makes the paper very valuable, especially about Christmas-time; of course, it cannot compare with the development paper for sensitiveness; yet in practice it has a great advantage, inasmuch as it does not necessitate especial skill on the part of the operator beyond what is necessary in albumen printing. Herr Schulz-Hencke, who has been experimenting with this paper, remarks that an increase of gold in toning materially accelerates the process. The *modus operandi* is as follows: Copy as with albumen paper strongly; before toning wash the copies for one or two minutes in water. The following gold-bath gives beautiful tones:

Solution 1.

Water . . .	1000 grammes.
Rhod ammonium . . .	20 "
Hyposulphite of soda . . .	1 gramme.

Solution 2.

Water . . .	100 grammes.
Chloride of gold . . .	1 gramme.

100 parts of Solution No. 1, 5 parts of Solution No. 2, afford the best mixture for toning-bath.

The prints turn first yellowish-brown, then purple-violet (2-3 minutes). Do not let them get too blue, because the copies, in drying, approach the blue color. From the gold-bath the copies are placed directly into the fixing bath for five minutes, which is composed of

Water . . .	1000 grammes.
Hypo . . .	50 "

If the water is changed frequently, one hour's washing is sufficient. In order to harden the film, the copies are laid in an alum-bath, composed of

Water . . .	1000 grammes.
Alum . . .	50 "

(for fifteen minutes), after which they are thoroughly washed for half an hour, and dried.

Herr Himley has lately made a new application of azaline plates to crayon reproductions. He took a crayon drawing with ordinary gelatine plate, and one with azaline plate; the ordinary gelatine plate gave a very unsatisfactory result. As Himley observed, the drawing appeared much stronger when a yellow disk was employed, and an azaline plate used for copying. As the drawing was of a blue tint, and the ground of the paper yellow, the result with an ordinary plate was, of course, flat and tame. By using the yellow disk and the azaline plate the blue strokes were repressed, whilst the yellow sensitiveness of the azaline plate made the ground appear white.

There has lately appeared a work, by Dr. Just, of Vienna, on *Copying with Chloride of Silver Gelatine Paper, with Development*. The book makes its appearance at the right time. From all quarters we hear complaints of the bad weather, of the impossibility of furnishing sufficient copies in a given time. Here is a quick process which promises relief. The difficulty of obtaining uniform tones with the rapid paper has somewhat cooled the enthusiasm over the process. Workers with this paper agree that a wealth of tones are obtained, but they are not always agreeable. The author has now established the condition by which the different tones may be obtained, and has shown how, partly with gold and partly without, tones from brown to black may be obtained; but the purple-violet, the favorite color, has not been reached. The process, however, deserves the closest attention of practical workers. Of great interest to us is the first chapter of the book, where a mathematical treatment of the subject is undertaken by the author; this would, of course, not be of much interest to practical men. Mr. Just has made his paper in a continuous roll, which is exposed under negatives by gaslight. At two yards from source of light of about the strength of forty candles, with exposure of $\frac{1}{2}$ -3 minutes, the paper gives the best results. The disagreeable tones, Dr. Just has found, are occasioned by the use of the oxalate developer; and, therefore, he pre-

fers other development, which does not exhibit these defects. He has employed acetate of iron, citrate of iron, and tartrate of iron; by which different tones are produced. He employs and recommends, for exposing, an ingenious piece of apparatus, which is called the automatic exposier, patented by Schlollerhouse. By its use, in a clear light, a hundred copies can be made in a minute. Perhaps, by use of this arrangement, a patron may, as in olden times, in the days of the daguerrotype, by waiting a few minutes, take his finished picture with him.

Next September there will be a great reunion of German doctors and scientific men, presided over by A. W. Hoffman and Virchow, who will make the best possible arrangement. This exposition will comprise only scientific objects, and hence photography, in its scientific aspect, will only be represented. The Society for Advancement of Photography has taken in hand the arrangement, and the call is made upon all to represent. Views of scientific and natural subjects will be welcomed. Spectrum analyses, botanical, zoölogical, geological photography, and all subjects of a scientific nature. Entries will be made up to the first of March next. Yours truly,

H. W. VOGEL.

BERLIN.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

The Poitevin Memorial.—The ceremony of unveiling the Poitevin monument took place on September 7th, at St. Calais, Sarthe, in the presence of all the notables of the department as well as the town, including the Deputies, the Prefect, and members of the General Council. The Government sent a delegate in the person of M. Roger Ballu, Inspector of Fine Arts. M. Hédin represented the Association of the Scholars of the Central School and the members of the committee of the subscription fund. MM. Davanne, Léon Vidal, De Villechole, Thouronde, Guillemot, and Audouin were also present. Five speeches were made during the ceremony: by M. Davanne, in handing over the monument to the town of St. Calais; by the Mayor, accepting it; M.

Roger Ballu spoke on behalf of the Government; M. Léon Vidal, in the name of the *Chambre Syndicale* of Photography; and M. Hédin, for the Association with which Alphonse Poitevin was connected. The inauguration was followed by a banquet to a hundred and fifty guests at the invitation of the municipality of St. Calais. Toasts were proposed by the Prefect of the Department, the President of the General Council, M. Cavagnac, Under-Secretary of State for War, etc. The proceedings terminated with a general illumination and fireworks display. Three monuments have been raised in France, in a short space of time, to the three men who have done most in the invention and improvement of photography—Nicéphore Niépce, Daguerre, and Alphonse Poitevin. There remains but the memory of Talbot to be honored in a like manner, but that should be on English soil.

In commenting upon the late exhibition of the Photographic Society of London, a local *daily* makes some remarks which may well apply to the work of our own American Societies:

"The very great improvements made during the past year or two in photographic appliances have not produced any corresponding advance in the results obtained. Such, however, is the fact. Looking at the exhibition as a whole, it is idle to pretend that the best work in it was not equalled last year, or the year before, or the year before that. The exhibition contains instances of the finest results photography is capable of producing, but then it always does so. It is up to its usual high standard, but the standard has not been raised. Perhaps there is no real reason to expect that it should be. Artists are no more plentiful than of yore, and a thoroughly successful photographer must be an artist, though he works under different conditions from his brother of the brush—conditions really more difficult because so much more limited. Of course, the mechanical part of photography is far easier now even than it was but a little while ago. The commercial demand for 'dry plates' has insured the supply of a good article, and in this respect the past two years have seen great improvements.

Consequently we may expect to find, as we actually do, a considerable levelling up. There is very little bad work this year at Pall-mall—there never was very much, indeed; but this year there seems less than ever. The best men are still well ahead, but the average workers are nearer them than of old."

In his last thought he hit the nail on the head. The "best men" long ago did as well technically as can be done. The "*improvements*" must be looked for in the direction of artistic excellence and the "*growth*" must come from the "average workers." As an example of this, in looking over our second volume (1865) a few days ago, we were much struck by the excellence of one of the views which embellish it. If he who made it still lived, we doubt if he could improve upon it even now, twenty years later, except that he would perhaps "combine" a little more carefully, and perhaps choose a somewhat different lighting.

But when he took his picture not a dozen in our country could equal it. But, to-day! oh! dear Sol!—a thousand could equal an artist of old every time.

Our London exchange further comments: "As usual the great majority of the pictures are landscapes, and the judges have awarded to this class eight out of a total of twenty-one medals. All these prize-takers are amateurs (four of them belong to the small 'Amateur Field Club,' which has so many medallists among its twenty-five members), and indeed, there is a conspicuous absence of those professional landscape photographers who, in former years, carried away the prizes in this class. There seems to be no special cause to account for this, but so it is, and at all events it is quite certain that there is no reason for the amateur photographer to fear the competition of the professional, except, of course, in portraiture, which requires special facilities not likely to be at the disposal of an amateur; besides, it must be remembered that a modern photographic portrait is only partly produced by photography, and that the process euphemistically termed 'retouching' does the most important share of the work. After tiring

out a few intimate friends by producing what those friends are scarcely prepared to admit as 'likenesses,' most amateurs are content to confess to failure, and to content themselves with the reproduction of subjects unable to retaliate by criticism."

This does not look as if the amateurs were taking very much away from the adepts—does it?

A photograph of a section of the sky has been taken at the Paris Observatory some five degrees square which shows three thousand stars on a ten-inch square plate. This would indicate that there are twenty million stars up to the fourteenth magnitude, inclusive.

Great heavens! The 40 x 36 films of the Eastman D. P. & F. Co. would take in portions of other worlds, and—will photography's ambition rise higher than that?

A DETECTIVE camera, not a mile from our office window, has scared away a group of lady-gazers from their *corner du loaf*.

In a lawsuit in England a dealer in "celebrities" admitted that the profit on a four-shilling photograph was 3s. 7½d. What a fool of a photographer!

THE editor of the *Amateur Photographer* is a punster on the very sly. America comes in for a good share of his pun-ishment. We imagine that if he was shut up in his dark closet with the threat that he should not be let out until he made a pun, he would cry out "O-pun the-door!"

Anyway, the *Amateur Photographer* seems to grow and flourish, even though its veteran contemporaries and advertisers tried to boycott it. It is bright enough for them.

And now they are trying to patent postage-stamp photographs in England.

PHOTOGRAPHS on porcelain glass were very popular as "Christmas Cards" last month.

LIFE insurance agents at a distance from the parent office are required to send photographs of the would-be "risks" to the board of directors, who pass opinion upon them before they are accepted or rejected.

PHOTOGRAPHY is now used by the bank of France, instead of chemical tests, for the detection of forgery.

FROM some experiments recently made by Mr. W. R. Burton (the well-known amateur photographer, to whom we owe the gelatine bromide process), it appears that positive emulsion paper is about a thousand times more sensitive than the ordinary albumenized paper.

FORMULA FOR PHOTO-MINIATURE.—Take an unsized photograph and plunge it in rectified turpentine for two hours; heat the convex glass with the following composition previously melted:

Gum damar	20 parts.
White wax	20 "
Canada balsam	15 "
Spermaceti	5 "

When the photograph is very transparent, remove the excess and wash with a fine cloth, soaked in benzine.—*La Nature*.

At the meeting of the Photographic Society of Birkenhead, Mr. A. W. Cornish developed, with great success, chloride of silver transparent prints with the following developer:

No. 1.	
Carbonate of ammonia	48 parts.
Citric acid	66 "
Water	144 "

No. 2.	
Sulphate of iron	48 "
Water	156 "

One part of No. 2 for three parts of No. 1.

The plates had been exposed for five minutes in diffused daylight, and a dozen prints were developed without changing the solution.—*Paris Moniteur*.

Mr. Theodore Haack, Arensburg, Russia, announces himself the agent for the new dry-plate changing apparatus invented by Mr. G. Woistlek.

STUDIO STUDIES.

(Continued from page 391.)

His nose was long enough for a lantern slide camera but it had both lenses at one end. The (red) light was at the other end and his pocket was empty.

He thought "life is but a fleeting show" and yet he wanted to live, so he allowed the



æsthetic photographer to "employ" him as a model. The badge of his profession he wears in his cap, and, being an editor he lighted his work by his own nasal argand.

His professional pistol had been pawned and his portrait had been declined by Mr. J. F. Ryder as "no ornament to his collection." He is not an advocate of the "dry" process, though he suffers from it.

The picture is a Levytype. The negative was made on a — plate by a — lens in — seconds and printed—not positive as to paper.

Editor's Table.

ROBERTS & FELLOWS is the name and style of the firm to whom we have sold our lantern slide manufactory and photograph business in Philadelphia. Their circular will be found further on. They are both gentlemen well skilled in photography, and amply able to keep up with all the requirements of the trade and times. Mr.

CHARLES T. FELLOWS began photography with Mr. H. C. PHILLIPS, of this city, fourteen years ago, and at one time was with Mr. GEORGE H. FENNEMORE. He served with the CENTENNIAL PHOTOGRAPHIC Co. in 1876, and then became printer-in-chief at the large portrait and celebrity establishment of GILBERT & BACON, Phila-

delphia, where he remained over eight years. At the New Orleans Exhibition he was superintendent of the department of printing, and has since then been in our employ. Mr. H. L. ROBERTS was also with Mr. H. C. PHILLIPS at one time, and afterward with Mr. F. GUTEKUNT, Philadelphia. He was the first President of the Amateur Photographic Club of Philadelphia, and few men in the club have more personal popularity. He has made numerous negative tours in the sunny South and elsewhere. He has lately been in our employ, and, as we shall soon prove by "Our Picture," has the true artistic sense and feeling. Both the gentlemen named are men of strict integrity, skilled in our art, and will prove worthy successors to a business which we have taken much personal pride in building up. They pay special attention to the manufacture of slides for amateurs, and sell our Oriental views. Their catalogue, they announce, will be ready soon after this reaches our readers.

JAPANESE HOMES AND THEIR SURROUNDINGS is the title of a magnificently illustrated work by Mr. EDWARD S. MORSE, published by TICKNOR & Co., Boston. The advance sheets sent us give promise of an unusually elaborate, beautiful work. The illustrations are from pictures made by the author while Professor of Zoölogy in the University of Tokio, Japan, and are, therefore, true to nature. Houses, ancient as well as modern, scenery, gardens, types, flowers, adornments, and what not, are profusely pictured. As an example of superb book-making, the work can scarcely be surpassed.

COMPOSITE PHOTOGRAPHS.—Mr. W. J. BAKER, Buffalo, N. Y., whose head is usually clear, and clearly not a composite, says, concerning our article under this head last month: "I have no confidence in such pictures as giving types; neither do I think, with you, that the *first* impression would dominate. If all had the *same* time, the whitest and most marked (intense) face would dominate, and an old, yellow face not get his (or her) share. I intend to try some experiments in this direction—twenty schoolgirls." Oh! then we shall soon see the typical American girl. We have never been able to discover her, yet.

"HONOR TO WHOM HONOR IS DUE."—We have received a copy of *La Dora Baltea*, published at Ivrea, Italy, through which we learn of a very pleasant "Dimostrazione di strina di simpatia" which took place recently in honor of our es-

teemed *confrère* Colonel OTTAVIO BARRATI, formerly Editor of *La Camera Oscura*. Sixty persons sat down to the collation, and our friend was given the King's decoration, "Ufficiale Mauriziano," for his eminent services in the army. A concert and speeches were the accessories, added to a colossal Turin cake, of which all partook with white wine. An ode was sung in which the praise of the gallant colonel was sounded, and an address made in which the Count alluded to the work of Colonel BARRATI in completing a railway between Ivrea and Santhia. The occasion was a happy one.

A REMARKABLE GROWTH.—We doubt if photographic history can record any more phenomenal growth than that of the dry-plate business of Mr. G. CRAMER, of St. Louis. Goods of uniformly excellent quality, energetic push, liberal and fair dealing, together with personal popularity, have all combined, and placed Mr. CRAMER at the very head of his class. One can almost read this between the letters of his characteristic signature, which will grace our cover during 1886. We wish him a continuance of the success which he has honestly earned, and the wish will be reëchoed by the thousands who profit by his energy.

OUR middle-January issue will be embellished by a magnificent photogravure picture (from life), representing the witching character of "Mother Shipton."

THE ST. LOUIS DRY-PLATE Co. have met such a demand for their excellent plates that an enlargement of their works has become a necessity. Not only this, the important improvements adopted for the production of their plates enables the Company to secure results absolutely uniform, and of a quality not surpassed.

We all rejoice over the maintenance of *quality* in these "cheap" days.

MR. WM. BELL, the well-known Philadelphia photographer, is now Professor of Photography in the Lehigh University, Bethlehem, Pa. He has a large and interested class, and is competent to teach.

MR. S. C. NASH, Harrisburg, Pa., has invented a novel camera and changing box.

MR. R. D. GRAY, 102 Fulton Street, New York, announces a "vest camera." It can be worn next to the heart.

CHOSŌN, THE LAND OF THE MORNING CALM, is another elaborately illustrated work, announced by Messrs. TICKNOR & Co., publishers, Boston.

The author is Mr. PERCIVAL LOWELL, who illustrates this fine "sketch of Korea" by magnificent engravings from his own photographs.

Thirty-seven chapters are included, which start the reader "where the day begins" and hold him fascinated until the work ends, and at night he needs "The Beacons of Pusan" to light him.

The royal octavo size, bold, clear type, and the photographically natural pictures, make up a work which all æsthetic photographers will be sure to own.

We shall refer to it, with some of the author's experiences, soon again.

The first dry plates ever exposed in Korea were used there by the author.

SCOVILL'S Detective Camera is a quick worker. A beautiful card describing it can be had free.

MR. GEO. HANMER CROUGHTON, a gentleman whose versatile talent enables him to do anything and everything in our art, advertises in Specialties for an opportunity to make himself useful with and for somebody. Our personal connection with him for over a year, and our acquaintance with him for many more, enable us to say that here is an excellent opportunity for someone to connect with one of the liveliest and best men in our art. We can endorse him in every way.

A SPLENDID CHANCE.—The attention of our younger readers is directed to the specialties advertisement of Messrs. W. H. NEIL & Co., Sydney, New South Wales, who wish an operator of the first class.

We are empowered by them to engage and contract with such a one. While it is a delicate matter to bring parties thus together, if they are mutually pleased it will be a satisfactory thing to do. As their instructions to us prevent us from considering anyone who has not been connected with a first-class establishment, it will be useless for others to apply. We have a month to make the arrangement.

THE series of notes, "From Our Office Window," will begin with our next issue—as soon as we are comfortably located in our new quarters, 853 Broadway, New York. We shall overlook Union Square, the great art and literary oasis of New York, about and near to which are many photographic studios, too, and where a

vast amount of life flows on, besides many other things, which we think we can make interesting to you.

Our first effort will be some notes on the displays seen at some of the doors of the neighboring photographic studios, and bits of life caught not far away.

"CHEAP" PRICES.—A carefully written paper on this topic, by Mr. T. H. Blair, will appear in our next issue.

OUR PROSPECTUS FOR 1886 supplies a declaration of what we propose to set before our readers during 1886.

The dish is to be double what it has been heretofore, with constant personal attention.

As we devote our life to this work, it will be seen that we must get our living by it. This fact constitutes one difference more between our own and other magazines. We cannot afford to give the same kind of inducements, but we give our best efforts, and they ought to be worth something after twenty-two years' of practical drill.

Please consider this when you decide to subscribe for a magazine. A little over twenty cents per copy is all the PHILADELPHIA PHOTOGRAPHER costs the subscriber for 1886.

THE Exhibition of the Photographic Society of Philadelphia opens January 11th and closes January 16th, at the Academy of Fine Arts. It promises to be a great success, since, three weeks before the opening, the secretary was afraid there would not be room enough for all the pictures coming. We hope to give a careful review of it in good time.

ANOTHER CATALOGUE. — Messrs. BLAIR & PRINCE, 148 West Fourth Street, Cincinnati, Ohio, have favored us with a copy of their new catalogue, which is a model of neatness and careful compilation. Under an æsthetic cover of original design, they supply 130 pages, quarto size, elaborately illustrated, which will be found of much service in the selection of a photographic outfit.

CURIOUS PHOTOGRAPHS.—Our readers will be charmed with the interesting letter of our amateur friend, Mr. IRWIN. Some of his pictures have been sent us, and they are exceedingly attractive. The one of King Kalakaua in the deep gorge of Pali would make a good illustration for one of Scott's novels. The groups of natives are curious, and "Birdie and Duckie"

are very touching. Mr. IRWIN will doubtless gather many gems as he goes on with his tour.

RETURNED.—Mr. J. W. MORRISON, of Pittsburg, Pa., the well-known ex-stockdealer, has returned to his former vocation, and, having purchased the business of Mr. JNO. I. SHAW, is located at his old quarters. We wish him much success.

THE report of Secretary McMichael is received, and will appear in our next issue of P. A. of A. matters of interest.

A USEFUL WASHING CONTRIVANCE, suggested by Mr. CHAS. W. HILL, 111 Broadway, New York, will be found described on another page. We trust many of our amateur readers will follow his generous example, and reveal to us what they find good in their practice. We all owe much to the amateurs.

MESSRS. E. & H. T. ANTHONY & Co., 591 Broadway, New York, have issued a very neat illustrated catalogue of "Amateur Photographic Equipments and Materials," which will be found a great convenience. It contains a great deal of valuable information.

The large, regular catalogue of this house we have called attention to previously. It contains 144 pages, and is a fine specimen of catalogue-making. The cuts are good and well printed. Among these, the one on page 29, of the "Benster" plate-holder, reminds us to correct the general impression that, because this useful device is supplied with silver-wire rests and a silver-saving bottle, it is only for wet plates. It is equally well adapted for dry plates. The greatest advantage of this holder is, that by means of its adjustable parts, racks, bolts, and catches, any size plate, from the largest down, can be used in it, and of any shape. The plate is caught by the parts thrown in focus, and there automatically held in proper place for exposure. No kits needed. It is supplied with the cameras made by E. & H. T. ANTHONY & Co.

ACCIDENT TO DR. A. H. ELLIOTT.—We regret to hear of a painful accident occurring recently to Dr. A. H. ELLIOTT, the genial editor of *Anthony's Bulletin*. He was experimenting with a solution of phosphorus, which, becoming overturned, spilled upon his left hand, burning it terribly. The small particles sinking into the flesh continued to burn for some time after the accident, making it all the more severe. We trust it won't be long before that good hand is all right again.

THE QUEEN'S EMPIRE, OR INDIA AND HER PEARL, is the title of another elaborately illustrated work, by JOS. MOORE, JR., F.R.G.S., illustrated by fifty phototypes selected by GEO. HERBERT WATSON, Esq., and printed by Mr. F. GUTEKUNST. J. B. LIPPINCOTT & Co., publishers, Philadelphia. Price, \$3.00.

Certainly this is a work which should attract all photographers. The views are from well-chosen negatives; the book is splendidly printed; the author's descriptions are fascinating and true to nature, and it is hard to put aside his splendid work without finishing it at one sitting. Thrilling adventures, the splendid charms of nature, and the incidents of travel, are all described with the care of a keen observer and poetic writer.

THE CAMERA CLUB was recently organized in London (21 Bedford St., W. C.), and is a great success. Full details are given by the *Amateur Photographer*, but, strange to say, the *News* and the *British Journal* seem to have overlooked the grand occasion entirely. The Honorary Secretary, Mr. A. H. DRESSER, may be addressed at Springfield, Bexley Heath, Kent, England. We wish continued success to all enterprises having photographic push at heart.

"PILES of *Times*, and only part of the weekly edition," said Mr. W. IRVING ADAMS, agent of SCOVILL MANUFACTURING Co., a few days ago, when we stood at the elevator with him and saw the great weight come up for mailing.

A large burden of the literary work upon the *Photographic Times* is performed by Mr. W. LINCOLN ADAMS, the young and talented son of Mr. W. IRVING ADAMS, and splendidly done, as we can all testify. Mr. W. L. A. has long been classed among our amateurs, and has produced some admirable studies, especially in New Hampshire and on Long Island Sound.

THE PHOTOGRAVURE Co. request orders sent direct to the works, Third Avenue and Tenth Street, Brooklyn, N. Y. Exhibition Rooms, 853 Broadway, New York.

853 BROADWAY, NEW YORK, will be the office of this magazine after January 1, 1886.

Letters addressed, in mistake, to Philadelphia, will reach us, but will be one day delayed.

In the metropolis we shall have wider opportunities for securing the very best material for our readers, and, relieved of other business, shall be enabled to devote our whole time to our readers. See prospectus.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to *secure* insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.

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AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voightlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

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Our office at 853 Broadway is still maintained, where we shall be pleased to meet our customers, give prices, estimates, and any other information desired in connection with our various processes.

Respectfully,
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ROCKWOOD SOLAR PRINTING CO.

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TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, we are not at all dependent on the weather.

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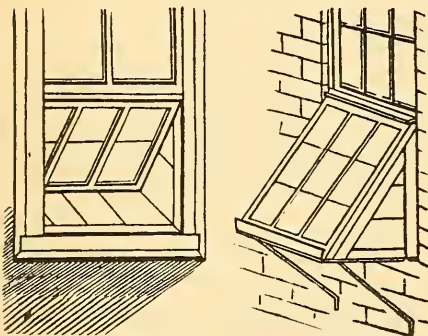
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OPERATOR.—Wanted undoubted first-class operator, capable of producing high-class work and throwing art into a negative, for a leading gallery in Sydney, New South Wales. Applicants must be well up in wet and dry plates and the work of the dark-room, and must have been engaged in a leading New York or other good gallery in the States. Leaning towards man capable of retouching. Outward passage paid from San Francisco. Good salary to a competent man; applicants to state age, and give full particulars as to qualifications, and where experience gained. Applications, together with specimens of unmounted prints of all classes of the applicant's own work, along with photograph of self, to be sent under cover to "Australia," care of E. L. Wilson, Esq., 1125 Chestnut Street, Philadelphia, from whom further particulars may be obtained. Only men whose character will stand the test of inquiry will be dealt with; waste of time for second-rate men to apply.

MANUFACTURERS and furnishers of engines, tools, and materials for the production and industrial use of paper, who would like their articles to be known in Russia, are informed that, from the beginning of 1886, there will be issued an especial Russian newspaper, *Paper and its Use*, devoted to the paper business. Advertising rates, one rouble, or two shillings, for five lines nonpareil, type measure, or the same amount of space with a suitable abatement if repeated. Advertisements are translated gratis. A very large quantity of the first number of the paper will be sent to paper manufacturers, stationers, printers, lithographers, booksellers, photographers, binders, manufacturers of paper hangings, and other industrials, using paper in Russia. Advertisements must be addressed to Aug. Naumann, 42 Kasauskaja, St. Petersburg, Russia.

WATERTOWN, July 13, 1885.

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I had always used the ——— plates, but when his factory stopped was obliged to try Stanley's.

I am much pleased with the result. They are the best quick plates for giving fine chemical effect with good density that I have ever used, and the latitude of exposure is so great that I have not had an overexposed plate since I used them; on the other hand, not a single plate was underexposed.

The 8 x 10 Novel Camera and the 8 x 10 Dallmeyer Rapid Rectilinear Lens I recently got from you, give the best of satisfaction.

Yours truly,
C. S. HART.

Send on the plates at once, as I am nearly out of Stanleys.

ALEXANDRIA BAY, Oct. 21, 1885.

MR. E. ANTHONY.

DEAR SIR: I took your advice and started with Stanley plates, and from that time to this I have not used any other, and shall continue to use them until I can find something better.

I could show you a number of letters ordering duplicates, and giving great praise to the brilliancy of the views sent. I shall send you a view of the steamer Maud running full headway, while I was on the steamer St. Lawrence going the opposite way, and also one of the steamer St. Lawrence I made from the land while she was going seventeen miles an hour. I made them with the Prosch Shutter attached to the Platyscope lens.

I must say that Stanley plates have helped me out of many a difficulty this summer.

I might add that the only paper I use for all my work is the new N. P. A. Pensé.

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THE undersigned, referring to the circular from Mr. Edward L. Wilson, published herewith, ask your attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at the above address,

With the most extensive and costly apparatus ever employed in such work, a splendidly accoutred studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

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For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France*, and *England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

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PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employes, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

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PHILADELPHIA, Jan. 1, 1886.

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At fair wages, as operator, printer, or retoucher. Address Photographer, care L. Blyn, 120 E. Eighth Street, New York.

After January 1st, by George H. Coughton, an artist and photographer of reputation in England (pupil of an English R. A., and holder of two first-class prize medals for painting and crayon work), as manager or artist, or would run a photographic business upon salary and commission with option of purchase, or any other position where his talents as an artist and photographer would be appreciated. He was artist for Messrs. Southwell Bros., Photographers Royal, Baker Street, London, and has worked for most of the best London houses; he was Superintendent of the Centennial Photograph Co., for Mr. E. L. Wilson, at the New Orleans Exposition last winter. Would rent a gallery where there is need of a man who can do high-class work. Address G. H. Coughton, 1125 Chestnut Street, Philadelphia.

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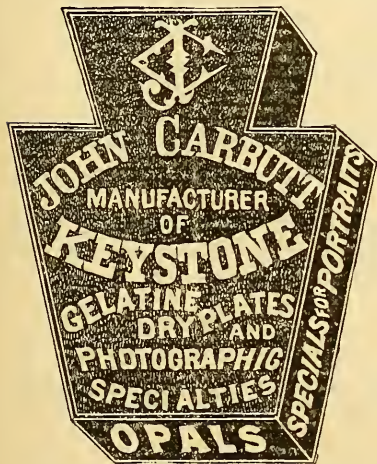
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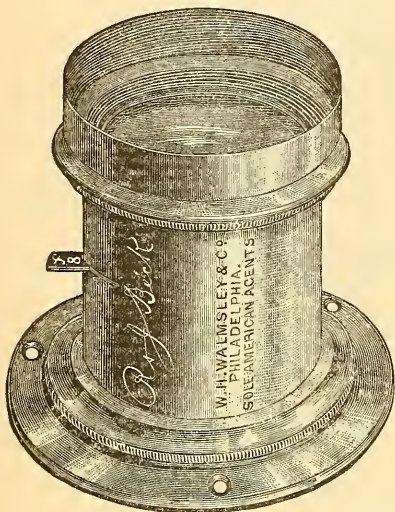
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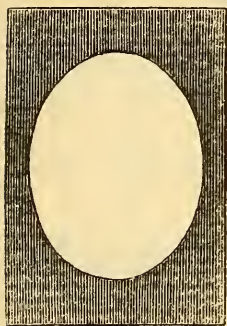
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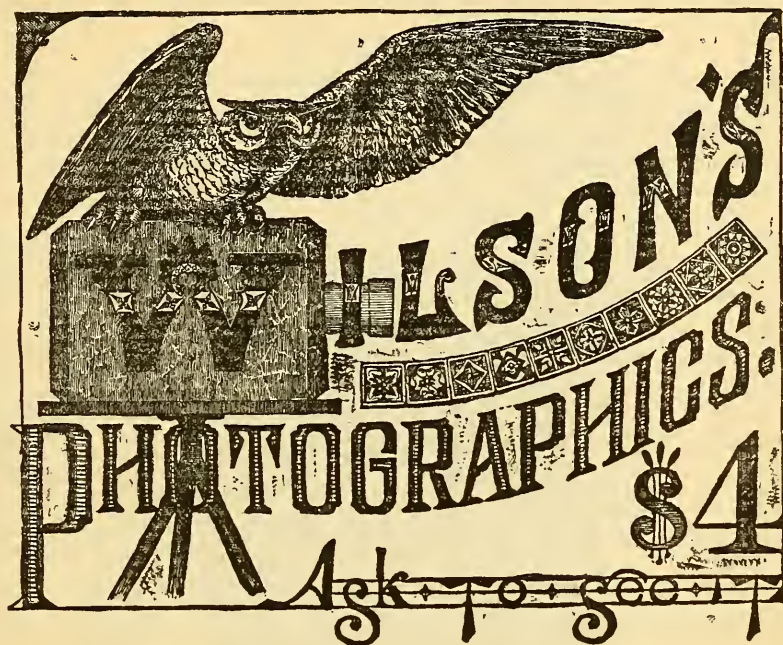
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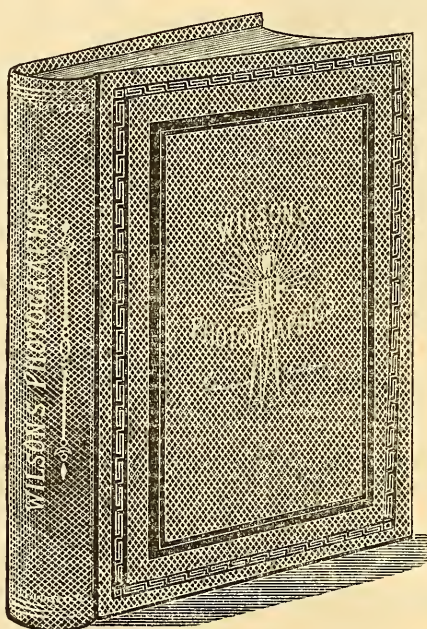
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 Prof. of Applied Chemistry in the School of Mines
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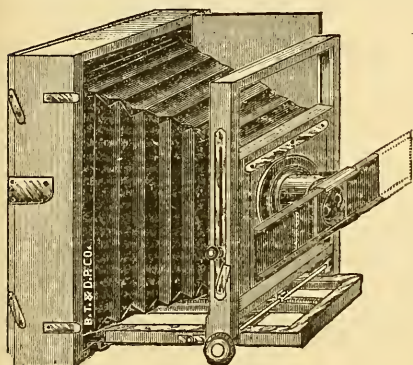
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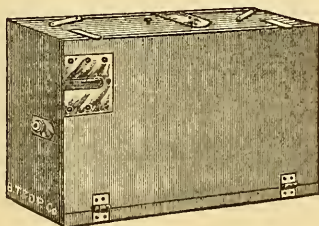
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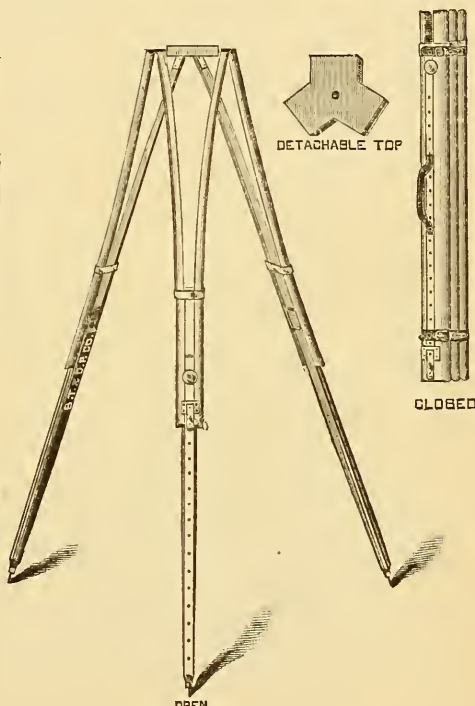
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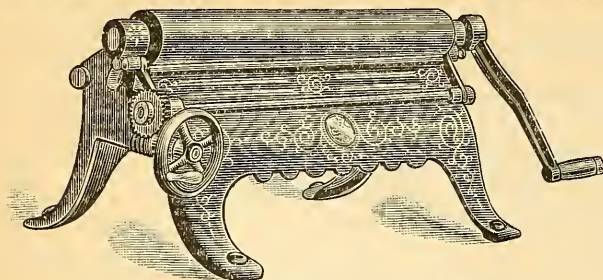
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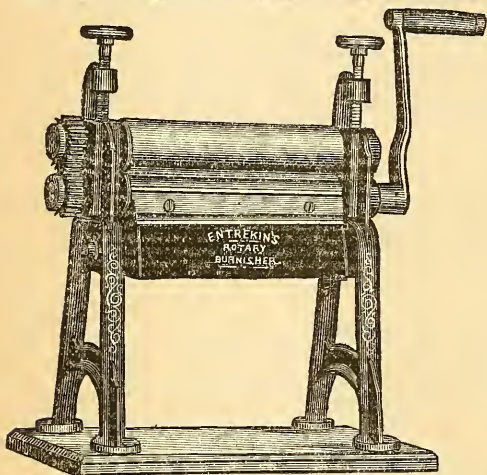
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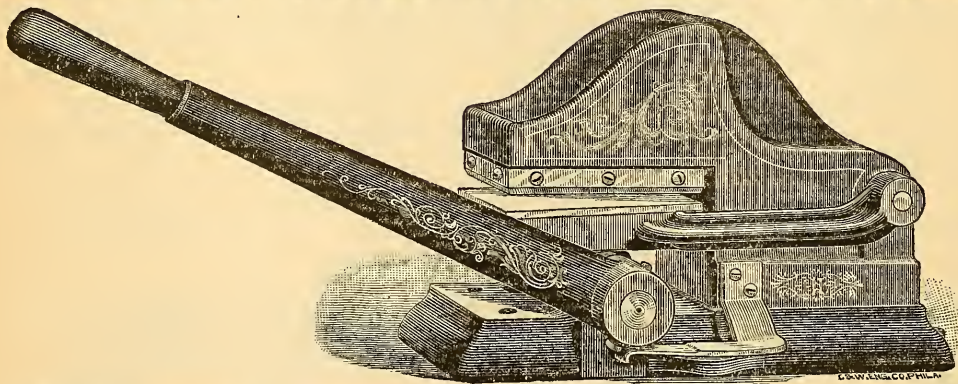
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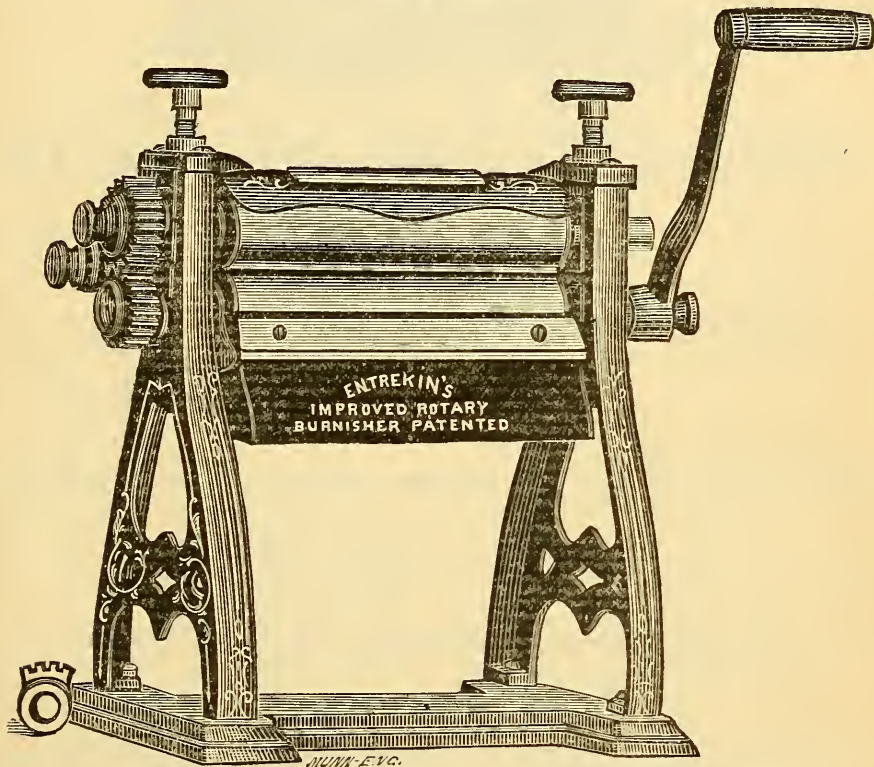
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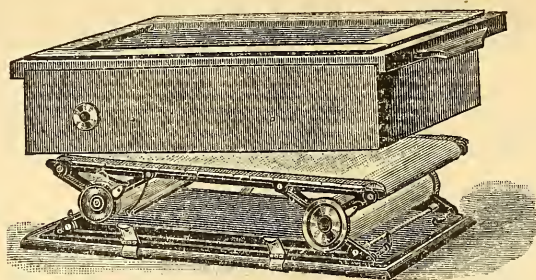
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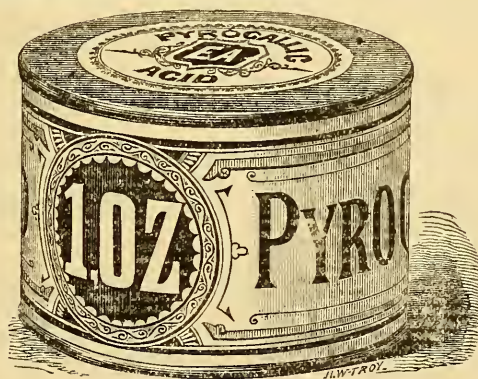
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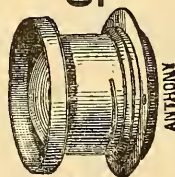
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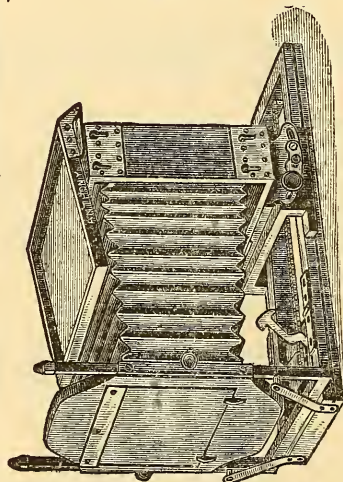
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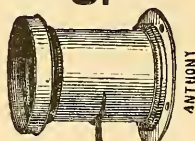
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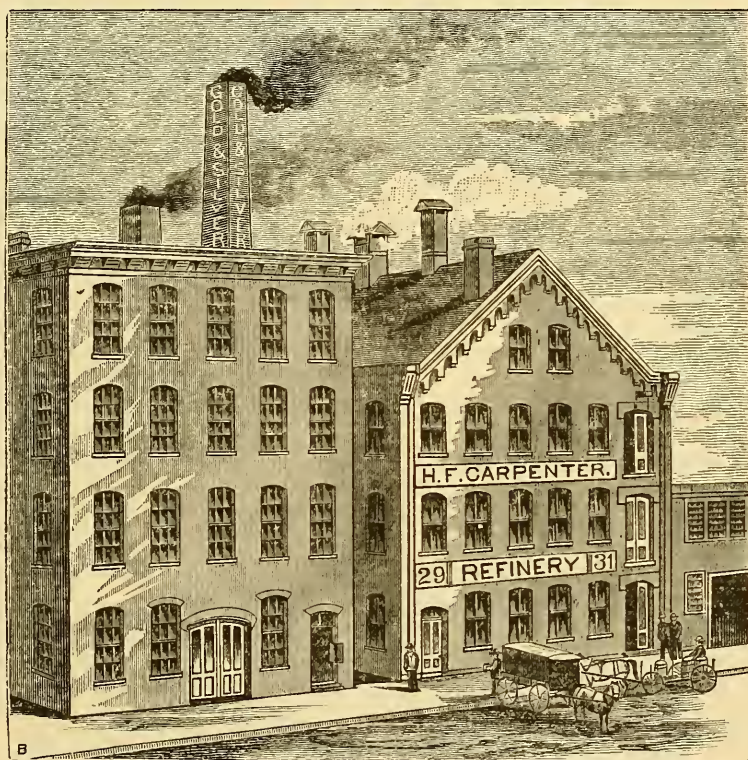
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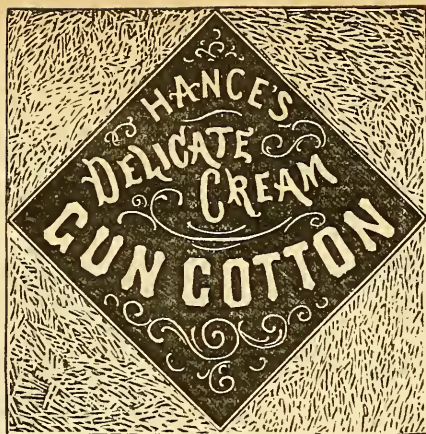
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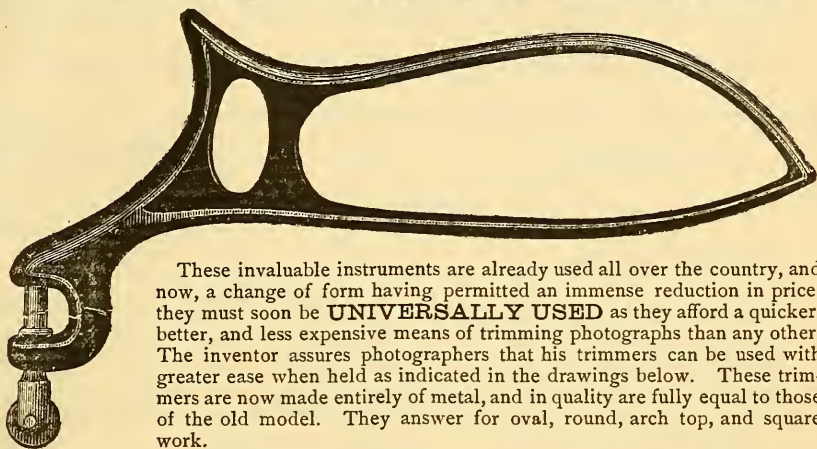
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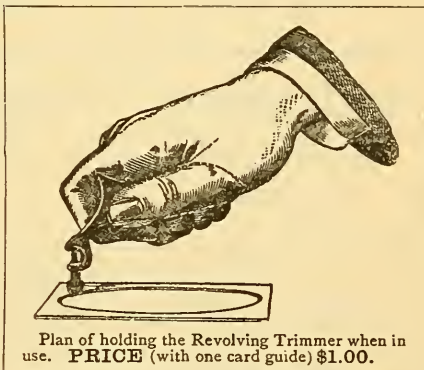
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2 $\frac{3}{8}$ x 3 $\frac{3}{8}$	3 $\frac{3}{8}$ x 5 $\frac{1}{2}$	5 $\frac{5}{8}$ x 7 $\frac{3}{4}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
2 $\frac{3}{8}$ x 3 $\frac{3}{8}$	4 x 5 $\frac{1}{2}$	5 $\frac{1}{2}$ x 7 $\frac{3}{4}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
2 $\frac{3}{8}$ x 4 $\frac{1}{2}$	4 $\frac{3}{8}$ x 6 $\frac{1}{2}$	6 x 8	7 $\frac{3}{4}$ x 9 $\frac{3}{4}$

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2 $\frac{1}{8}$ x 3 $\frac{3}{4}$	2 $\frac{5}{8}$ x 3 $\frac{3}{4}$	2 $\frac{3}{4}$ x 4 $\frac{1}{2}$	4 x 5 $\frac{5}{8}$
2 $\frac{1}{8}$ x 3 $\frac{3}{4}$	2 $\frac{5}{8}$ x 3 $\frac{3}{4}$	2 $\frac{3}{4}$ x 4 $\frac{5}{8}$	4 $\frac{1}{2}$ x 5 $\frac{5}{8}$
2 $\frac{1}{8}$ x 3 $\frac{3}{4}$	2 $\frac{5}{8}$ x 4 $\frac{1}{2}$	3 $\frac{3}{8}$ x 5 $\frac{1}{2}$	3 $\frac{7}{8}$ x 6
2 $\frac{5}{8}$ x 3 $\frac{1}{8}$			4 x 6 $\frac{1}{2}$

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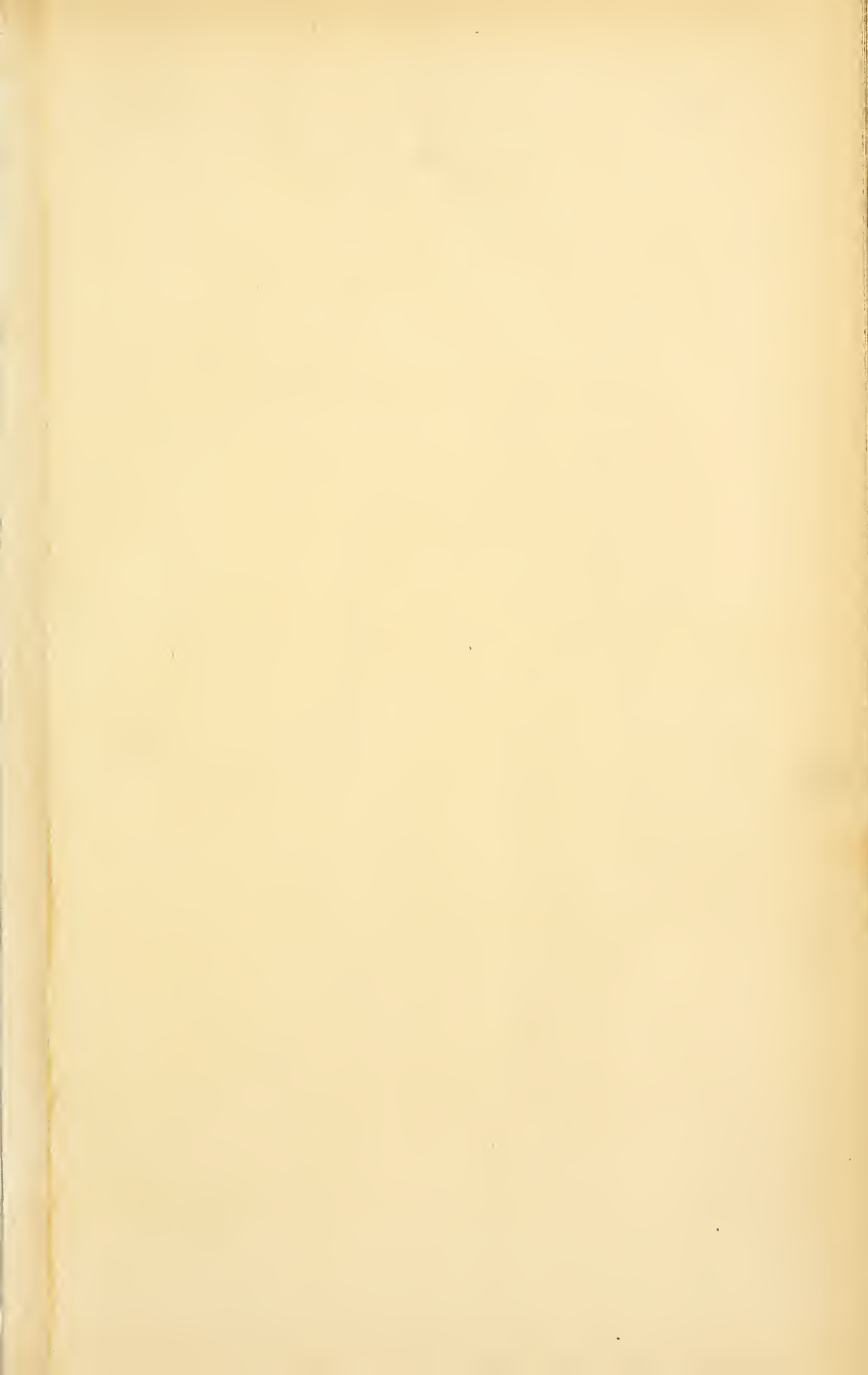
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STUDY FROM LIFE.

THE

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

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No. 266.

A WORD OR TWO FOR '86.

THE responses which our annual circular received from our old subscribers, excerpts from a few of which we weave into *good words* for our Table, convince us that we have made no mistake in issuing the PHILADELPHIA PHOTOGRAPHER twice a month, neither in moving its publication office to New York.

We are not going to confess that we have been perpetrating a fraud upon the public for many a long year by not making these changes long ago, for we are "not guilty." The time had not earlier arrived when, in our judgment, to say nothing of our convenience or desires, we felt called upon to take such steps for the good of the craft.

Within a year or so photography has made rapid strides, and, although it has widened its influence as well, it has also found a more positive centre. That centre is New York, and here we are, to keep pace with the way things go. No matter how full you cram the crucible with residue and flux—all necessary to get at the best value of things—the silver button—the golden bead is formed and found at the centre—at the bottom of things. And the bottom of things photographic is New York. Hence, as a good journalist, desiring the best good of our readers, we have come to the bottom, in order that we may be of more value, and found, when sought for, in the right place. Do you focus?

Again, good words come in approval of our several new departments. Thanks to all for this. Our best personal work shall be yours now, if you support us in these new endeavors. We point you to some more to strengthen this impression, notably to the Art contributions of Mr. Croughton and Mr. Smith. These gentlemen are alive and in earnest, as you see, and will well repay all the attention you may give them.

We have not been in our office long enough to get more than a glance out of our new window; but we have seen a great deal, and begin to tell you of it on another page. Come and look with us.

Ours is the cheapest first-class photographic magazine in America—yea, in the world.

We intend to set also the example in appearance as well as quality.

We recognize the requirements of the times in general and of our art in particular for good literature and good examples of work at low prices, and have shown an earnestness to meet the needs by this new course we have undertaken. We realize most sensibly the fact that in giving twice what we formerly did, for only \$5 a year, we place great faith in our work—in the earnest appreciation of it by our old patrons, and by the new ones who may come. Shall we be deceived?

Thousands of specimen copies have been sent out—everywhere. The ice is broken with almost every one interested in our art

in our land. Won't you, therefore, drive the nail home? fix the thing before your neighbor changes his mind, by urging him to subscribe for the PHILADELPHIA PHOTOGRAPHER for 1886. Please read our prospectus.

ON "TYPE" PICTURES.*

BY KARL KLAUSER.

A TYPE picture is the result of copying upon one plate different photographs, either of one individual or of members of one family, or of one of the human races. Individual traits of character are lost, and the strongest points of "type" brought into prominence. When on a visit in New York, I showed a specimen type picture of my five daughters. I was surprised to find that even the most prominent photographers of that city had never seen a photograph of this kind, although they had read about them. Being asked to state my mode of operation, I now reluctantly do it, being aware that there were many heroes "before the time of Agamemnon."

In the first place, I take single portraits of any five or six subjects in the same immovable chair, as much as possible in the same position, and looking at the same object. These portraits are printed, not necessarily toned, not mounted, but burnished, in order to destroy the grain of the paper. Next, get a piece of board in which you have cut a circular opening, large enough to admit the head of one of the pictures. Pin on No. 1. Adjust looking through the light No. 2, being careful to have the eyes correspond, and pin it over No. 1 on the board. Next, the third and fourth in the same way. When you come to the fifth and sixth, a strong sun reflection will be necessary to enable you to see the outlines and the positions of the eyes. Having your prints pinned one over the other, fix your board stationary on an easel, and proceed to make a copy of all the six portraits upon one plate, dividing the time for exposure into as many seconds as will be necessary for a satisfactory copy. For instance, if you should find it advisable to expose sixty

seconds in order to get a good copy of *one* of the pictures, and you have *six* pictures to copy on the same plate, then ten seconds would be the necessary exposure for each of the six pictures. Having focussed with a lens of sufficient depth, where the thickness of a few layers of paper would make no perceptible difference in the sharpness of the focus, expose for ten seconds on the uppermost print; cap the lens; unpin the copied print, taking great care not to move either the camera or the board holding the prints. Now expose another ten seconds on the next print, and so forth, with the same precautions.

We are sadly in want of a photograph of Adam, the first man, and of Eve, the first woman. If the photographers in large cities, who have access to a large and mixed population, would find time and opportunities to make a combination picture of the different races of man: the Malay, the Australian, the Negro, the Mongole, the Japanese, the Caucasian, the Arab, the Semite, the Indian, etc., the result would be a type picture of the primitive man—if not of Adam, then of one of his ancestors.

DEVELOPMENT WITH CARBONATE OF SODA.*

BY M. E. AUDRE.

I HAVE given formerly the formula which I preferred for the alkaline development of the gelatino-bromide of silver plates. I do not wish now to retract what I have said in regard to my formula, which still gives me excellent results, but I wish to make known a mode of operating, new I believe, which has impressed me by its simplicity and, I might even say, by its elegance. It economizes at least from fifty to seventy-five per cent. in the dearest product used in the development,—the pyrogallie acid, and it completely does away with the acidulated alum bath which I deem necessary to remove the too decided yellow tone of the negatives. This is a double advantage not to be overlooked.

I would add that I have operated with a

* Written for *Mosaics*, but received too late.

* Communication before the French Photographic Society.

number of plates of different makes, and that all, including my own, have given me satisfactory results, some more than others, perhaps, but none were rebellious to my new mode of development.

My process consists simply in using separately the pyrogallic acid bath and the alkaline bath. Of the mother solution of pyrogallic acid already mentioned, and prepared as follows:

Sulphite of soda	. 25 parts.
Distilled water	. 100 "
Sulphuric acid	. 3 or 4 drops.
Pyrogallic acid	. 10 drops.

I take from 10 to 15 parts (according to the results that I wish to obtain), to which I add 100 parts of water, and immerse my exposed plate in this bath. I allow it to remain at least one minute or more, even from 10 to 15 minutes would cause no injury; the image commences to appear in this bath on account of the presence of the sulphite; but it is quite useless, although without danger, to await this result. In the meanwhile, I prepare in another dish the following alkaline bath:

Solution at 25 per cent of sulphite of soda	. 10 parts.
Saturated solution of carbonate of soda*	. 3 "
Ordinary water	. 100 "

I now withdraw the plate from the pyrogallic acid bath and after having allowed it to drain two or three seconds, I at once plunge it into the alkaline bath. The development is made with very great rapidity and with a clearness explained by the very small quantity of pyrogallic acid in the alkaline bath. In fact, the gelatine film has absorbed in a manner the quantity of pyrogallic acid necessary for its development, and nothing more, from which it results that the alkaline bath is not sensibly colored, neither is the sensitive film.

When the exposure has been normal the development is ended in one or two minutes, at the most; but it may be prolonged if it is observed that the intensity increases with

* The proportion of 3 per cent. of the solution of carbonate of soda is a minimum which it would be well to increase twofold, and even threefold if the strength of the gelatine film can bear it.—Author's note.)

the duration of the immersion. It is very rare that anything else is necessary than to wait in order to obtain a perfect negative. In case the exposure has been much too short, it may be necessary to add to this last bath in succession a little pyrogallic acid, then a little carbonate of soda, in order to force the tardy details to appear; but I repeat, this should only be done in exceptional cases, when very quick stops have been used, such as those of Thury and Amey. With exposures in the full summer sun of from one-twenty-fifth to one-fiftieth of a second, I have obtained excellent negatives, using a little patience, without having recourse to any addition of pyrogallic acid or of carbonate.

The proportions that I have just given, as well as the formula itself, are not absolute and may be modified to a very great degree. Instead of the mother pyrogallic solution, this acid may be in powder in the specified proportion, more or less according to the desired intensity, and dissolved in acidulated water to which the sulphite has been added. If it is thought that the plates are liable to fog easily, a few drops of a two per cent. solution of bromide should be added. But I have very seldom had need to do so. Finally, and this is not the least important point this pyrogallic solution may be used until exhausted, provided it is done in the two or three hours following its preparation. Thus, I have developed as many as twelve negatives, 13 x 18 centimetres, with one gramme of pyrogallic acid, and if care has been taken to prepare this bath with distilled water, which is not indispensable, it may be used the greater part of a day.

As to the alkaline bath, it has such little value that I reject it after each operation. The greatest latitude exists for the proportion of sulphite, which I have fixed at 2½ per cent. (100 cc. of a solution at 25 per cent.), and I may say also that it exists for the proportion of carbonate of soda. But here there is a danger if the quantity is too great. It is the tendency to blister when the bath is too alkaline. With very resisting films I have used as much as 10 or 20 per cent. of the saturated solution of the carbonate of soda; but with the greater number of commercial plates blisters are to be met with; I

prefer, therefore, to reduce to a minimum the quantity of alkali at the risk of having the development prolonged for a few minutes longer.

A good precaution to be observed in summer, when developing plates cut with a diamond, consists in rubbing over the cut edge with a piece of virgin wax. The liquid cannot penetrate under the film and thus frilling, the cause of blisters, is avoided.

I have the honor to submit some instantaneous negatives developed in the manner described above, and from which the color has not been removed. You will see that they have no objectionable tint and that their appearance closely resembles that of clichés developed with iron.—*Paris Moniteur*.

PRACTICAL POINTS FROM THE STUDIOS.

A PROCESS TO DISCOVER THE PRESENCE OF SODIC HYPOSULPHITE.

Mr. Macdougall has communicated to the Photographic Association of Dundee a method of discovering traces of hyposulphite in photographic products. He simply makes use of the Marsh apparatus used in medico-legal investigations for the discovery of arsenic.

In a bottle furnished with two glass tubes, one bent at a right angle and the other having a funnel, hydrogen is produced by means of pure hydrochloric acid and pure zinc. This gas is without action upon a damp paper impregnated with a solution of a lead salt. But if to the liquid contained in the bottle a small quantity of hyposulphite of soda be added, sulphuretted hydrogen is evolved and the paper becomes black. Mr. Macdougall says that the reaction is so delicate that it is possible to discover $\frac{1}{500000}$ th of a grain of hyposulphite. A print, washed in water that had been renewed six times, then placed in an automatic washer for twelve hours, exposed for half an hour to the action of boiling water and finally rinsed under a tap, was allowed to macerate in water. The water of maceration, when tried by Mr. Macdougall, showed a marked indication of the presence of hyposulphite of soda.

PHOTOGRAPHY AND CERAMICS.

In the *Journal du Céramiste et du Chauffournier*, M. Duplessy gives an elementary process for the application of photography to the ceramic art:

Distilled water . . .	100 grammes.
Rice starch (in preference to all other) . . .	2 "
Glucose . . .	12 "
Nitrate of uranium . .	3 to 4 "
Bichloride of ammonia or berberine, in preference to bichromate of potash . .	2 to 3 "
Nitrate of iron . . .	1 "

To prepare this mixture dissolve the starch in one hundred grammes of cold water, and, after having boiled it so as to obtain a light and well-triturated paste, add the glucose and then the other substances enumerated above. The plate being dried, is exposed to the light under the negative from thirty to sixty seconds. After exposure develop the image by means of a soft brush containing the vitrifiable powder composed as follows:

Take a concentrated solution of nitrate of lead and an equal quantity of concentrated liquid borax; the two products being mixed, a white precipitate is obtained—a borate of lead, which being thoroughly washed in water and dried by exposure to the air, yields an impalpable white powder. This powder, to which it is essential to add an equal quantity of stanniferous enamel, is mixed in the proportion of two parts for one of the vitrifiable colors used for the development of the image.

The print being developed, in order to transfer it to the object that is to be decorated, it is covered with the following solution:

Sulphuric ether . . .	60 grammes.
Alcohol @ 40° . . .	40 "
Guncotton . . .	$\frac{1}{2}$ gramme.
Hydrochloric acid . . .	4 or 5 drops.

The print being now plunged into water, is easily detached from the plate, and permits of any transfer.

Finally, to finish the operation the coating of liquid borax is poured over the print, which is allowed to dry before placing in the muffle.

CARBON development by means of sulpho-cyanuret of ammonium. Process of M. Lecornet.

M. Chardon has made some experiments in the use of sulpho-cyanuret of ammonium for developing carbon prints. M. Lecornet having given no formula, M. Chardon made one, and he was well satisfied with a 12 per cent. solution.

Three different experiments were made:

1st. A sheet of mixtion paper is exposed, transferred to its support, and thoroughly dried. This sheet, treated with a solution of sulpho-cyanuret, was very slow in developing.

2d. Use of tepid water at about 22° Centigrade, with the addition of a small quantity of the sulpho-cyanuret. Development much more rapid and a tendency to the green tone of the oxide of chrome.

3d. Temperature of the water raised from 35° to 45° Centigrade, addition of from 2 to 3 per cent. of sulpho-cyanuret, mixtion paper purposely overexposed. The print after development showed itself perfect in all its details; no half-tone had been affected, as the sulpho-cyanuret attacks only those parts not influenced by the light. This product is, therefore, excellent for the practice of the carbon process. M. Chardon, in proof of his observations, shows some beautiful prints obtained by development with sulpho-cyanuret of ammonium.

A NEW SULPHITE OF AMMONIA DEVELOPER.—I have fully recognized the value of a potash developer for rapid plates and short exposures; but, notwithstanding this, I recommend a new developer, containing ammonia and ammoniacal sulphite, which is excellent for almost all commercial plates.

A. Dissolve 10 parts of pyrogallie acid and from 25 to 30 parts of ammoniacal sulphite in 100 parts of water.

B. Dissolve 5 parts of ammoniacal bromide in 150 parts of water, and add 50 parts of liquor ammonia.

To make the developer, take 100 c.c. of water, 4 c.c. of the pyrogallie solution A, and 4 c.c. of the alkaline solution B.

The development is very quickly made, and if slower action is required, add 50 c.c. of water, which gives softer images. On the

other hand, if we wish to obtain stronger images, add a few drops of a ten per cent. solution of ammoniacal bromide.

The ammoniacal sulphite developer gives well-modelled and brilliant negatives, in which the high lights are well rendered and the deep blacks well defined; the negatives have a very agreeable dark-brown tone. The ammoniacal sulphite renders the pyrogallie solution more permanent than does the sodic sulphite, and with this developer there is not much danger of fogging.—DR. J. M. EDER in *Bulletin de L'association Belge de Photographie*.

It is said that a plate that has been exposed may be restored—that is to say, that the latent image may be obliterated by means of a bath of bichromate of potash, followed by copious washings; such is the opinion of one of our photographic journals. Mr. C. Elisenté states that several other substances produce the same effect, notably a five per cent. solution of prussic acid, or of sulphate or nitrate of ammonia.

ONE of the most eminent photographers, Mr. W. England, has published a very useful paper on the spots which so very frequently show themselves on plates, and which are only seen after it is too late—that is to say, after the development. In truth, it is during development that these spots are produced, as everybody knows they are transparent and many negatives have been ruined by them.

Mr. England shows us that these spots are caused by the dust which adheres to the plates, and which is found there before exposure. A speck of dust on the exposed plate acts as a screen, prevents the action of the light, and disappears in the developing bath, leaving in its place a small transparent spot. The grooved boxes so generally used for carrying gelatino-bromized plates when travelling, are very liable to allow the dust to penetrate, which attaches itself to the film, and it is necessary, says the author, to pack these plates with a sheet of paper between them. They should only be placed in the holders at the time of using them, and these, as well as the interior of the camera, should be well dusted.

DEVELOPER FOR INSTANTANEOUS PRINTS.—This is what Mr. C. Faber has to say on this subject in his correspondence in the *Bulletin de L'association Belge de Photographie*:

What is the best developer for instantaneous prints? Here is a question which has very often been put to us; for three years we have found nothing that can be compared to the concentrated developer, the formula of which is due to our excellent colleague, Dr. Eder. We prepare the bath as follows:

In 100 grammes of boiling water we dissolve 60 grammes of pulverized neutral oxalate of potash; the solution being kept at a temperature of from 90° to 95° centigrade, we add 20 grammes of sulphate of iron; this salt dissolves rapidly, and after this result is reached, the developer is placed in carefully closed bottles (glass-stoppers, slightly coated with vaseline). After twenty-four hours the solution is decanted to separate it from the crystals which have been formed, and it is then ready for use, forming the most energetic developer for gelatino-bromized plates. If the action of this developer is found to be too rapid, it suffices to dilute it with more or less water; by adding an equal volume of water we obtain a bath which still acts more rapidly than the developers made by the usual formulæ. This solution keeps pretty well, but if it is to be kept for a long after having been decanted, add 15 grammes of tartaric acid for each 250 c. c. of the solution. Keep in a well-lighted place.

CHEAP PRICES.

BY T. H. BLAIR.

THE earnest discussion and lengthy articles upon this subject which for so long a time have occupied the attention of photographers throughout the country, have greatly interested me, and though at so late a date what I say may be sadly in the rear, yet like that much-abused appendage, the monkey's tail, it may serve for some other monkey to grasp and help swing himself to a higher eminence.

Cheap prices (by which I mean prices which do not compensate the producers for

articles produced and sold) are generally the result of two causes, either the desire of a stronger producer to force a weaker competitor out of business, or circumstances which compel producers to lower prices in order to realize sufficient means to meet their immediate wants. That in the majority of cases neither party accomplishes the object in view, I think, goes as a fact without my adding it.

We are living in an age when cheap production for the masses seemingly is the aim of all large producers, and so strong is competition in all lines that, in order to meet the demands of buyers and consumers, the outcome is cheapness overdone to the extreme. There is abundance of capital and labor yet lying idle which, as each day passes, becomes willing to be employed for less, if safely—and are we not violating the first laws of a “free country” when we interpose or attempt to injure the name of the man who makes use of both or either to better his condition? But, to photography, which I will attempt to view from an artistic and business point. Judged from a critical standpoint, there are few photographic pictures made in the general routine of business, which can justly lay claim to being works of art. They may be novel and exceedingly beautiful, but the apparent conceived idea of the artist as carried out in detail by attitude, expression, and surroundings, is not there.

That photography is not capable of or never will be classed among the high arts, I am not prepared to say, but that it is not today, nor as generally practised has no right to be, I think all unprejudiced minds will agree with me. We have no school by which the student may acquire a proper knowledge of the art. No attempt is made to carry his mind high into the ideal. No great master grasps the fertile mind of the young beginner, and from a pure love of his profession, delights in seeing his *protégé* develop and improve—there may be examples of such, but it has not been my lot to have known of them. We have no critical exhibition or classes where merit is necessary in order to be represented—in fact, we have nothing in common that has been the means of enabling the high arts to live and com-

mand the high respect they have in all ages ; thus, since photography does not command or employ the most skilled and educated labor, its productions cannot continue to command anything beyond a commercial value. The optics, chemistry, and appliances of photography have been carried to a degree nearing perfection : effects that were impossible five years ago, are to-day attained with ease, but what advancement has been made in producing work of greater, real artistic merit ? What step has been taken to advance and improve students or compel the ambitious to produce a work of excellence in order to be accepted at exhibits or conventions ? Even works of merit are allowed to be smeared with the mercenary mud and their beauty spoiled. What is more demoralizing to our art than to see a fine exhibit of photographic prints interwoven with placards painted in flaming colors, and to be seen before the pictures themselves, reading, "made on the Jones & Johnson plate," or "printed on the Rising Sun paper," and this in the assembly halls of our National Convention ? Does the plate-maker or stockdealer own you, gentlemen, or are you unable to pay for the raw material on which this selection representing your best work is made, that you must so cheapen yourself and photography with this distasteful practice ; if not, you spend your time and energy in advertising the party who makes his money by selling what you use. I presume I figure as one of that unfortunate class myself, so you must see that I have no evil design on either stockdealer or plate-maker, but the practice has a damaging influence on photography. What would be said of a representative exhibit of paintings or statuary decorated with similar inscriptions proclaiming the maker of canvas, brush, or paints, or the agency of the crude marble ? Instead we see only the painter's name modestly twined in amongst shrubbery or rocks, while an unpretentious card giving simply the name of the sculptor, may dangle from the pedestal on which rests the chiseled image. So long as photographers will sell their independence in this and similar ways, such as by naming the maker of the camera, lens, or plate they use in every article they write for the photographic press

—which makes the most of them read like a cleverly arranged advertisement—just so long will photography fail to maintain the position it should, and the price of photographs be governed by the cost of raw material and manual labor to produce them.

Much indignation has at times been expressed toward those who encouraged amateurs, but does not the fact that so much stress is laid on the plate or paper on which the photograph is made, which you exhibit at our public exhibitions, do more toward encouraging the public to figure the value of a photograph, by the cost of materials used in its production, than any knowledge which can be given to amateurs ; the more the latter class learn of photography, the more they are convinced that photographs of merit are not easily produced—even if one has the best of apparatus and plates. There are occasions when, in order to make plain the merit of a picture or give the information on the subject, one wishes to do in an article, it is necessary that the name of lens, camera, plate, or paper on which the picture is printed be given, but if we ever expect a high standard of work or literature, this privilege should be restricted to such cases. Photographic publishers are free to acknowledge that they have to cater more to the advertiser than the photographer—the reason they give is, that the photographer cannot or will not give them the support necessary to conduct an independent journal, not a journal with the word independent simply printed on the cover, but with the true metal ringing through every column. Will not some noble soul try the publishing of such a journal, and if so, will not the noble souls already in photography smile on the benefactor a broad, appreciative smile, "when he cometh." I, as a photographic manufacturer, will agree never to threaten him with a blank space in the advertising column if he does not "puff" my wares. Excuse me, Mr. Publisher, no offence is intended ; you are doing the best you can, and much better than I should do in your editorial and proprietorship shoes, but somebody should do even better.

Before leaving this point, let us consider the manner in which most of us enter pho-

tography, and adopt it as our profession. Might I be forgiven if I should say trade? for I feel certain that the majority of photographers commence their career in this art in a way very similar to that which the ordinary carpenter or mechanic adopted when he first took up the plane or file. The object in view is dollars and cents; their fitness for the art is seldom seriously considered; nor do they undergo any arduous study before claiming the title "artistic photographer," or "photographic artist." We have exceptions to this, and men who are an honor to photography, but they are in the minority, and it is by the majority that the world judges us. I wish to be understood that in anything I may say I have no desire, or am I attempting to ridicule the art, or its devotees, of which I am a member; nor am I writing this for publication in a journal that will lay it before the general reading public. I am saying it to photographers, who must consider that the nearer we get to the truth and the cause of our troubles, the better for all.

Judging from a financial point of view, many of our most successful photographers have left the farm, the mill, or the wareroom to take up the printing frame, collodion vial, and posing chair, and graduated from all without the crudest knowledge of art. Nor do they wish for anything further than that which will give them a clear, sharp picture with the least possible expenditure of time and money; but the future requires something different; whether it would be wise or not, for the ideal man, moved solely by the love of art, to enter photography and attempt to be sustained by his productions, I cannot say—he would doubtless become a martyr; but a few such martyrs would be a godsend to this following, which the critical world hesitates in calling in earnest an art. Let us now look at it from a business point of view.

Photographs are now made cheap, but not as cheap in comparison as cheap goods in other industries. A suit of clothes can be bought for a very small sum, but still the prices charged by first-class tailors are not lowered. A very palatable meal can be had for twenty-five cents, and a night's lodging for a similar sum; yet large and

costly hotels are constantly being erected, the high tariff of price maintained, and are generally well patronized. The cause is, I think, quite apparent: instead of tailors or hotel proprietors using their efforts in ascertaining how cheap a suit of clothes can be produced, or the public entertained, they exert themselves to improve the quality of their goods, or add to the comfort of their guests by luxurious surroundings, skilled labor, and better quality of materials.

The most successful want and insist upon having the best of everything and then charge a price to pay them for their trouble; the same will apply to photography. Having one's self photographed is a luxury, and a luxury which a large class are willing to pay for if it is evident care, skill, and valuable material are used in producing their pictures, together with refined treatment and methods of business. An elegant and showy reception room, with a dash at advertising, alone will not have the desired result; everything must harmonize, care for the neatness of your rooms, neatness of work of employes and self, pleasant attention to customers, a wish to gratify their desires when it does not injure your reputation, letting manners convince that you occupy the dignified position of being master of your calling. Constant pursuance of this is sure to meet with success unless some unfortunate management or circumstance is connected with the enterprise; and here I am carried back to my former argument that in order to be able to do this requires close application to study and a previous education. One of the saddest phases of this struggle for more business, by low prices, is the personal strife and abuse which grow therefrom. If one man dares to offer his work for a less sum than his neighbor, he is called a "cheap John," and many other and more abusive appendages are added to his name. Is the circumstance of his case ever considered? May not a needy family or pressing creditors compel him to take the step? But be that as it may, so long as no attempt is made to injure your name or wrongfully injure your business these harsh and unpleasant appellations should not be uttered: my argument is not for the monopolist—yet who of us would

not be a monopolist if we could—every energetic man's desire is to secure all the trade and profit possible, if done by fair means, and he alone should be the judge whether it can be done by lowering or raising his prices. This is competition which you encourage in your daily purchases by buying where it is for your advantage, and I am tempted to add, this bartering with those of whom you buy for a lower price can be and is overdone by photographers of to-day; cheap goods are demanded from a camera down to a card mount; every department is squeezed and the goods bear evidence of the pressure while the result is not to enrich the photographer. It only places the business a step lower and requires less capital to enter it. Photography is not alone, however. The desires of anxious tradesmen to increase their income have induced many to lower the standard of their productions to please a public who respect them less for the step, and as a reward of this give their custom to a competitor. 'Tis true many have bettered the condition of their pocket by so doing, but the time for reaction is at hand, and, while there will still remain business for cheap photographers I think there is a sufficient number to care for it. There may yet be room on the lower rounds of the ladder but there is always plenty on the upper. We certainly have enough poor photographers, and there is ample room for the men who have the courage and ability to cater to the public as they desire, and charge a proper price for their services.

Will not those having influence, encourage only men (or women, I care not) who are suitable to these requirements, to enter the ranks, and when once in give them words of encouragement to fit themselves by study and practice to meet the public on a higher plane than has been the custom of the great majority of photographers? On this depends our future prosperity, and most assuredly the reward is there for those who will bravely meet the difficulties at first to be encountered. First, a knowledge of the requirements of art; next, how to execute according to these requirements. A love for the work and pride in the results, combined with business ability, and given time to be

appreciated will, I firmly believe, add proof to my convictions. In fact proof has already been furnished by men who have acquired means and fame for themselves in this manner, but such examples must be more plentiful before photography can be raised from the commercial mire in which it is now wallowing.

While I may have but little cause for hope, I trust that I have in my homely way said some word that will inspire an upward movement, and hasten to close, fearing I may unintentionally knock the chip from off the shoulder of some champion. Heaven protect me from such a blunder! I am a poor fighter.

PERTAINING TO THE



Secretary's Report for the year ending
December 31, 1885:

Receipts.

Feb. 8, from Treasurer Carlisle . .	\$150.00
June 30, from Treasurer Carlisle . .	50.00
July 13, from Treasurer Carlisle . .	25.00
July 14, from Treasurer Carlisle . .	15.00
July 15, cash from—	
E. & H. T. Anthony & Co.	207.20
Scovill Manufacturing Co.	190.35
David Tucker & Co.	118.00
G. Cramer	43.75
T. Hendricks	33.75
Rochester Optical Co.	34.10
W. G. Entrekin	35.25
Malineckrodt Chemical Works . . .	36.25
Allen Bros.	36.80
Geo. R. Angell	28.00
Benj. French & Co.	37.90
T. M. Starr	26.25
Geo. Murphy	27.65
A. M. Collins, Son & Co.	63.00
Carried forward	\$1,158.25

Brought forward . . .	\$1,158.25
John Carbutt	52.25
Douglass, Thompson & Co.	26.25
H. A. Hyatt	26.25
Zimmerman Bros.	26.25
St. Louis Dry-plate Co.	26.25
W. H. Wamsley & Co.	26.25
Buchanan, Smedley & Bromley	27.00
Wm. Eckhardt	26.25
J. C. Somerville	26.60
Wilson, Hood & Co.	26.25
Smith & Pattison	54.30
J. W. Ennis	26.25
M. A. Seed Dry-plate Co.	26.25
American Albumen-paper Co.	26.25
Perrigo & Faupel	26.25
C. Schindler	35.75
Eastman Dry-plate and Film Co.	55.90
L. W. Seavey	63.00
J. W. Bryant	126.40
W. F. Ashe	64.00
Knapp & Caldwell	68.12
Wolf & Cheyney	26.25
Extras for space	30.00
Toledo Moulding Co., wall space	20.25
W. D. Gatchel	20.00
July 20, from—	
Treasurer Carlisle	500.00
Treasurer Carlisle	327.93
Treasurer Carlisle	200.00
C. Gentile	6.00
	<hr/>
	\$3,086.75

Due the Association from—

C. Gentile	\$4.00
John Bonte & Co.	25.00
	<hr/>
	\$29.00

Disbursements—1885.

Jan. 5, Diagrams of Music Hall	\$2.00
" 12, Copying Report of Executive Committee	3.30
" 12, Postage stamps	1.00
Feb. 6, Crosseup & West, 3 electrotypes	3.00
" 6, Express on official papers	1.20
" 15, Postage stamps	1.00
" 18, Cash book	2.25
" 18, Letter-heads and envelopes	19.00
" 18, Tin box for books and papers	6.50
" 20, Holders for mailing diagrams	2.25
" 20, Postage stamps	2.00
" 20, Postage stamps	2.00
" 20, Holders for mailing diagrams	75
	<hr/>
Carried forward	\$46.25

Brought forward	\$46.25
March 2, Engraving and printing plan of hall	23.00
" 6, Postage stamps	2.00
" 30, Telegram	25
April 7, 600 half-sheet letter-heads	4.00
" 8, 400 half-sheet letter-heads	2.00
" 9, Postage stamps	2.00
" 30, Diagram of State Arsenal	30.00
" 30, Holders for mailing diagrams	2.76
" 30, Postage stamps	2.00
May 2, Holders for mailing diagrams	1.20
" 2, Postage stamps	2.00
" 26, Holders for mailing diagrams	50
" 27, Holders for mailing diagrams	75
June 1, Postage stamps	2.00
" 4, Express on books from Leo Weingartner	1.80
" 5, Telegram	25
" 20, Diagrams in ink	25.00
" 20, Postage stamps	2.00
" 24, Sending R. R. certificates	2.05
" 30, Postage stamps	2.00
July 3, Account book	35
" 7, Charges on badges	50
" 7, Postage stamps	2.00
" 10, Tape line	65
" 10, Telegram	42
" 10, Telegram	22
" 10, 200 tin blanks	25
" 10, Carpet tacks	21
" 10, Ballot box	75
" 15, Telegram	43
" 16, Blank ballots	50
" 16, Cartage	40
" 18, Cartage	1.00
" 20, Rent for State Arsenal	5.00
" 23, Telegram	80
Aug. 3, Postage stamps	1.00
" 3, Express parcel	45
" 4, Express parcel	35
" 6, Exchange on Checks	65
" 20, Ad. in Buffalo <i>Evening Telegraph</i>	3.50
" 25, Ad. in Buffalo <i>Evening News</i>	3.50
" 27, Freight and cartage on German exhibits	90
" 28, Telegram	25
" 28, 6 copies Executive Committee's Report	6.56
July 14 to 18, Paid Treasurer Carlisle	1,711.34
" 14 to 18, Paid Treasurer Carlisle	110.50
June 22, 3000 copies Constitution and By-Laws	120.00
" 25, Engraving diagram of Arsenal	15.00
	<hr/>
Carried forward	\$2,636.29

Brought forward . . .	\$2,636.29
June 25, 5 electrotypes . . .	7.50
July 13, 200 exhibition permits . . .	2.00
" 13, 250 half-sheet letter-heads . . .	2.50
" 13, Extra binding Constitution and By-Laws . . .	1.50
" 13, Help during Convention . . .	135.73
" 13, Signs . . .	21.70
Oct. 17, Paid Treasurer Carlisle . . .	58.50
" 21, Paid Treasurer Carlisle . . .	19.00
July 19, Ad. in Buffalo <i>Morning Express</i> . . .	3.50
H. McMichael, percentage . . .	201.54
	<u>\$3,089.76</u>

H. McMICHAEL,
Secretary P. A. of A.

CORRECTIONS IN THE TREASURER'S REPORT.

DEAR SIR: The December number of your PHILADELPHIA PHOTOGRAPHER, containing my report, lies before me, and I am pained to note the glaring errors so fatal to an understanding of said report. Please turn to the manuscript sent you, and you will observe the number of contributing members of our organization is 625, while your printed report gives only 425.

Only one item of expenditure, draft No. 5, was marked with an asterisk, and the typo has marked a half column as 1884 expenditures. How can these errors best be rectified in order to make my report read intelligibly? I leave the solution of this enigma in your hands.

Fraternally yours,

G. M. CARLISLE.

PROVIDENCE, R. I., Dec. 17, 1885.

THE EXECUTIVE COMMITTEE.

DEAR SIR: The officers of the P. A. of A. hold their first meeting January 16, 1886, at Southern Hotel, St. Louis, Mo., and if you should be perambulating the country about that time and can make it convenient to be present, we will be highly pleased.

I wish the semi-monthly appearance of the PHILADELPHIA PHOTOGRAPHER much success.

Yours truly,

W. H. POTTER.

THE FUTURE.

SOME of the warm friends of the P. A. of A. are making earnest preparations to secure for it a greater usefulness, a higher dignity, and a permanency.

To this end, some important measures will be presented for consideration at the next convention for the careful consideration of the craft. Some of them may be presented beforehand, so that an intelligent vote may be had.

It is high time photography assumed the highest rank among the businesses of the world, as well as among the arts. We rejoice, therefore, at every step taken to place it where it should surely be.

A good, careful officership can do much, and earnest co-workers can help immensely.

PHOTO. FACTS AND FANCIES.

THE HEMATOSCOPE.

This instrument was brought to the notice of the congress at Grenoble by Dr. Henocque, of Paris. It is intended for the spectroscopic examination of the blood, whilst at the same time it may serve to photograph blood—that is to say, the oxyhemoglobin or azotic matter of the red globules which contain iron, and furnish oxygen to the tissues.

This little instrument is composed essentially of two small strips of glass placed one over the other, so as to be in contact on one side, and separated at the other side at a very wide angle. Held together by brass clamps they form a prismatic space, almost capillary, in which it is possible to examine the blood in a thickness regularly progressing from 0 to 150 thousandths of a millimetre. When some drops of blood are placed between the strips of glass this liquid spreads and forms a film almost colorless at the top, but gradually more red toward the base. The richer the blood is in oxyhemoglobin, the darker is the tint.

When the hematoscope is filled with blood it is placed on another small, white, enamelled plate bearing letters in black and figures. These may be read through the clear portions of the film, but they are no longer distinguished in the thick and colored portion. The more coloring matter, the fewer letters may be read. It is thus that we read the photometric and sensitometric degrees. If instead of reading the degrees, the system described above is placed on a

sheet of sensitive paper, and the whole exposed to light, we will have an image with a decreasing tint, of which the last visible figure will indicate the degree sought.—*Paris Moniteur*.

THE MEISENBACH PROCESS OF ENGRAVING.

The Meisenbach process has been patented in the name of Frank Wirth, and is described as "a communication from George Meisenbach, of Munich, in Germany," from the specification of which the following details are obtained: A transparent plate is etched or stippled in parallel lines. A transparent positive is made of the object, the two plates are joined, preferably face to face, and from the combined plates a definite negative is photografted in the ordinary way. In order to cross-hatch and break the lines of the shading, the hatched or stippled plate may be shifted once or twice during the production of the negative. The photographic negative thus obtained may be either applied direct to a zinc plate, or a lithographic transfer may first be made in the usual manner, and the plate subsequently bitten by acid to form a block in relief. Considerable importance is attached to the shifting of the hatched or stippled plate, this being the part of the process which is especially sought to be protected by the patent.—*Art Journal*.

THE *Photographic Amateur* is using the Meisenbach Process to illustrate its "Prize View Competition Articles," and has produced some charming little studies.

THE fire insurance companies propose to photograph all the buildings on which they hold risks, and when there is a fire to photograph the results to prove the loss.

A WONDER OF PHOTOGRAPHY.

Among the wonders of photography it is said that with a lens made of rock salt it might be possible to photograph in the dark. One operator has succeeded in preparing plates which are sensitive to the rays lying beyond the red end of the spectrum—the dark heat rays—and with such plates used with a rock salt lens there should be a possibility of photographing bodies which pos-

sess a high temperature, although that temperature may be far below that needed to render them self-luminous. It is even possible that such a plan may some day be so perfect as to give us that information about the "dark suns" that are believed to crowd the firmament—or rather heavenly bodies, which once were seen, but have now cooled down so as to be invisible.

GLUE is rendered waterproof by first soaking it in water until it becomes soft, and then melting it, with gentle heat, in linseed oil.

PHOTOGRAPHIC societies have almost all commenced again their meetings. At present the number of our societies is very considerable, and increases each year. Since the introduction of gelatine dry plates the use of which is more easy and less costly than the old processes, the number of amateurs has enormously increased, and many of the provincial societies are almost exclusively composed of amateur photographers. Not only do they encourage taste for the art, but they largely contribute to bring new inventions before the public. As soon as a new appliance, or a chemical product used for the first time in photography, sees the day, the manufacturers send samples to these amateur societies, where the properties, advantages, or disadvantages are discussed. In this way, our amateur photographic societies give a great impetus to photographic trade.—LEON VIDAL in *Paris Moniteur*.

TO THE PHOTOGRAPHERS OF AMERICA.

WE desire to reach your ears and enlist your interests in a subject which concerns every man, woman, and child in the nation.

A power has been at work for many years, silently and insidiously, to overthrow the weights and measures that you employ in the production of everything that interests you and gives you occupation. The men who are instigating this are doing your thinking for you. They assume that your intelligence is insufficient to enable you to choose for yourselves the measures that you will use, and hence they are now petitioning

Congress to set aside the system of measurement that your forefathers have used time out of mind, and to force upon you a foreign one of which you know nothing. The man who fails to use his ballot when his influence and assistance are necessary is not a good citizen, and the man who neglects to inform himself upon a subject which concerns his most vital interests, and who, through indifference, permits Congress to take away his hereditary weights and measures and to put a foreign system into his hands, is not a good citizen.

A bill was brought before the last Congress for the purpose of making the French metric system compulsory after March, 1889. Members of Congress, as a rule, are indifferent on this subject and are liable to pass the bill. If you have never investigated this matter, which so vitally concerns you, will you not now awake from your lethargy and determine that no member of Congress in the district in which you live shall have the power to change the usages of your forefathers?

If we could see that Congress had the right to make the change, and understood the true nature and derivation of that which they propose to enforce, as well as the superior value and origin of that which they may give up, then we could afford to leave it in their hands. But the majority are not instructed on this subject, and it is essential that they should be.

We claim that the Anglo-Saxon system of weights and measures is an heirloom descending to us from the remotest generations of the past; a heritage of God and divinely preserved for us, as shown in the indestructible monument in the land of Egypt—the Great Pyramid of Jeezeh.

We beg you to study this subject, and to this end we ask you to subscribe for the Magazine, which investigates the origin and value of our hereditary system of weights and measures.

The editor of this magazine is one of our active members.

Send for a circular and prospectus to Charles Latimer, President of the International Institute for preserving and perfecting weights and measures, 64 Euclid Ave., Cleveland, Ohio.

THE OPEN CORNER.

FLASHES FROM THE BEACON.

It is no new thing for a beacon light to be located near or upon some well-known point of elevation, and so, in order to make the locality of our new contemporary well understood, we stated that it was in the building with Douglass, Thompson & Co., 229 State Street, Chicago.

In this we were wrong, and the genial editor puts us right, in his December issue, in his usual kindly way, thus:

"We thank our good old friend Mr. E. L. Wilson, of the PHILADELPHIA PHOTOGRAPHER, for kind expressions regarding ourselves, and good wishes for the success of the *Photographic Beacon*, but wish to put him right as to the location of our office. It is not at the stores of Messrs. Douglass, Thompson & Co., but in the rooms occupied by the Chicago Amateur Photographic Club, the Chicago Photographic Association and the Chicago Microscopical Society, which, in common with the offices of at least half a dozen other people or firms, happens to be in the building, part of which is occupied by the well-known stock-house. The only connection we have with Messrs. Douglass, Thompson & Co., is the having secured their good-will and a big advertisement, a connection which we mean to deserve and hope to secure with every stock-house in the country."

The December issue of *The Beacon* is even brighter than its first number, if that is possible.

In "Home Chats" Mrs. Eunice N. Lockwood gives us some good suggestions, which should have a large acceptance. Among other things, she says, in speaking of photographic journalism:

"Twenty-five years ago *Seely's Journal* lay upon our table, the sole publication in this country upon the use of the camera; it supplied the demand at that time, and brought us many good things, but when the PHILADELPHIA PHOTOGRAPHER put in its appearance three years later we realized our art was advancing, and onward and upward has been its progress ever since, widening and broadening, and being of use here, there, and everywhere in nearly every branch of

industry and trade. Photographic literature has multiplied, to keep pace with the demand for more information required in our art."

Right good, Mrs. Lockwood. There is no reason why we should be shy about revealing our knowledge of the past history of photography, for veterans in our art are not so rare as they were when the N. P. A. created a "Veteran Roll."

THE IDENTIFYING PHOTOGRAPHIC PORTRAIT.

A Paris newspaper, *The Figaro*, has just made a new departure in journalism, which is destined to render this well-known paper more popular. Its editors have entered into an agreement with Mr. A. Liebert, the skilful photographer, to undertake the enormous task of making a photographic portrait of each of the thirty thousand subscribers to *The Figaro*, and in addition, to carry out all the formalities required by French law. The card portrait is contained in a little book of the shape of a pocket-book, which when opened out presents three sides. One contains the portrait, and the others a certificate of identity, the attestation of two witnesses, the certification of the mayor, and the government stamp. There is besides a little pocket for letters, etc. This article is furnished without charge, by Mr. Liebert, upon the presentation of a receipt for one year's subscription to the paper. All future subscribers will enjoy the same privilege. We may add that the postal and telegraphic departments admit this photographic pocket-case among the number of justifying certificates required for the payment of money orders, and, having the government stamp attached, it will take the place of the old-time passport, with this very decided advantage, however, that if either lost or stolen, it could not be used in substitution.

THE question of the thickness of the emulsion film on dry plates occupies, at this time, much attention among many photographers. It is a question which may become of very great importance in regard to both art and trade. In reality, if the film is too

thin, if when the plate is held before the eyes it is possible to see the flame of a candle, it will give negatives of too little density, despite the fact that it contains the proper quantity of silver. On the other hand, if the plate contains a thick film, it is possible to diminish slightly the quantity of silver given in the formula. We see that this is becoming in every way a *silver* question. This is so true that we have been assured that some manufacturers thus reduce the quantity of silver, so as to enable them to sell their plates at lower rates than the manufacturers on the other side of the street. It will be easily understood that this state of things will soon find a limit.—*Paris Moniteur*.

THE number of amateurs is gradually increasing with us, but among them many ignore the scientific principles of our art, and fail to practise photography seriously, seeking to bring out new improvements. There is a tendency to buy apparatus at the lowest possible cost, and to expect results equal to those only attainable with superior instruments, and a knowledge of chemistry and optics. Many, therefore, turn back after repeated failures from these causes, and abandon it altogether. It would be much better to have a little patience, and study for a short time the how and why of photography, and then to proceed to work with suitable apparatus in an intelligent manner, which cannot but give great pleasure. Evidently a methodical photographic course of study is wanted. The State institutions have not yet provided it, and, perhaps, it has not been thought remunerative enough to allow of the necessary expense of providing apparatus suitable for such a school. I am convinced that sooner or later it will form a branch in an establishment for applied science—as the *Conservatoire des Arts et Métiers*, for instance, where a complete course of applied photography could easily be organized for the benefit of everyone wishing to learn.

Bibliography.—Meanwhile photographic manuals are not wanting while awaiting oral and experimental teaching. The house of Gauthier-Villars has just published *Procédé du Gelatino-Bromure*, by M. Geymet, and *Guide Pratique du Photographe Ama-*

teur, by M. Vieuille. Besides these, a new weekly photographic journal, *L'Amateur Photographe*, has just come out under the editorship of M. Francois Veynes. All this sounds promising for the amateur, but still more important is the practical teaching by which, alone, can photography be successfully cultivated by the greatest number.—
LEON VIDAL.

PHOTOGRAPHY AT THE LOUVRE GALLERY.

LITTLE by little, photography takes its rank in the arts. A master of literature, M. Ernest Legouré, has happily proved its merits on the occasion of the opening at the Louvre of a photographic gallery. Here is a translation of his article published in the *Paris Temps*.

It is a great honor that the Louvre has paid to photography in opening one of its galleries to M. Braun's exhibit; but it is a deserved honor. During the past twenty years photography has risen more and more to the rank of art, and useful art. What services has it not rendered? Who can forget that during the siege of Paris it was photography that joined again the severed ties between us and our dear absent ones, by placing thousands of letters under the wing of a pigeon? Thirty years ago, M. Ravaisson proposed the application of photography to the teaching of drawing. But since then it is not drawing alone that has found in it an auxiliary, it is the whole field of education; it is geography, it is history, it is archæology, it is epigraphy, it is numismatics, it is literature. What light does it not throw on the past, this living avocation, so to speak, of the grand moments and of great men? M. Pasteur said to me, without photography it would not have been possible for him to complete his admirable experiments upon microscopic beings. M. Janssen, the illustrious astronomer, has repeatedly told me that all his discoveries concerning the composition of celestial bodies, would have been impossible without the aid of photography. A doctor of the Hospital Saint Louis related to me what a powerful aid photography had been to him in studying epidemic

diseases, by enabling him to have always present, under the eye, the thousand varieties and the thousand variations of these complex and mysterious affections. Let us thank, therefore, the gallery of the Louvre for having by its generous hospitality paid the debt of science and art due to this fertile invention. I recall with emotion that fourteen years ago, at Dornach, I was one of the first to whom Mr. Braun confided his project of reproducing, by photography, all the great galleries of Europe. I heartily applauded his idea, although I must admit that I thought it a dream that could not be realized. To-day the dream has become a reality, St. Petersburg, Madrid, London, Dresden have sent, and are still sending, their rare marvels of art to Paris; the galleries of the great capitals now meet in our Louvre.

It was no more than right that our gallery should also have its turn by the exhibition, inaugurated recently, of some of our principal works of art in the presence of the President of the Republic. Alongside of the Oedipus and of the Spring of Ingres, of the portraits of Antonio Moro and of the charming picture of Memling, were harmoniously arranged the elegantly framed reproductions of the Disciples of Emmaus, by Rembrandt; of the Marriage of St. Catherine, by Corregio; of St. George, by Raphael; of the Jaconde, by Léonard. These divers schools thus placed in presence reproduced the manner, the character, and sometimes even, which seems impossible, the color peculiar to each master. The tables were loaded with albums containing the ensemble of the reproductions, which consist of not less than one hundred and fifty pictures, and nine hundred drawings. This collection of drawings is a veritable treasure. Nothing is more interesting and more instructive than the juxtaposition of a print made ten years ago and one of to-day of the same masterpiece. The Giorgione of the Square Gallery, produced, yesterday, a veritable stupefaction amongst us all. By what art, by what series of experiments, of trials, of scientific investigation, has it been possible for M. Braun to succeed, from this first attempt, so indistinct, confused, uncertain, in the reproduction of this admirable

plate in which we find the delicious suppleness, the plenitude of forms, the richness of tones of the Venetian master? I cannot undertake here to give a description of each of these masterpieces of reproduction—you must see to believe. But I cannot refrain from recalling the fact that these marvels come to us from a little village in Alsatia; that this fertile idea started from the head and the heart of an Alsatian, who has devoted to it his life and his fortune, and that the Louvre rewarded, yesterday, in him, not only a great inventor, but one of our dear Frenchmen outside of France.

In conformity with an agreement made between the administration of the Fine Arts and the house of Braun & Co., there has been created, inside of the galleries of the Louvre, a studio for photographic reproductions, and galleries for their exposure and sale.

Messrs. Braun & Co. show a very great number of specimens of the new reproductions, obtained by means of a sensitive film appropriate to the nature of each picture.

In order to allow visitors to compare the old reproductions with those of the same works due to the application of their new process, they have grouped a considerable number of these images of the two kinds. The progress realized, thanks to the new sensitive surface, is apparent at first sight, and so much so, that in examining the present prints we are tempted to ask if they are not the result of skilful retouching, so conformable are they to the originals, with the exception of color. The reds, the browns, the yellows, the intense greens, are reproduced with all their value; the scale of tones is everywhere identical with that of the copied work, without the result, however, owing to a too complete isochromatism, of the least monotony in the appearance of the reproduction. We have always thought that the great desideratum to be obtained in copying polychrome works of art, consisted in giving the exact relative values of each color. We had always hoped that this progress would be realized, so that the photograph of a painting might be assimilated, as to the effects of light and shade and modeling, to the monochrome work executed with the pencil or the graver by a skilful

artist. Now, this problem has been completely solved, as will be evident by a visit to the superb collection of the old paintings of the Louvre executed by Messrs. Braun & Co. Let us add that these remarkable prints are made by the carbon process, which is a guarantee of their stability. A certain number of these specimens have been transferred to Holland paper with wide margins, and the result is a much more artistic appearance, and well calculated to charm the most fastidious amateur. Nothing can give a better idea of the original pictures, and nothing has been omitted to give to these close reflexes of the works of our great masters the character of high-priced engravings. We have here veritable works of art in the most strict and just acceptance of the term.

Messrs. Braun & Co. do not limit themselves, in printing their negatives, to the carbon process alone; we have seen at the Louvre very beautiful specimens of photography, made in their ateliers at Dornach, where they also make a very successful use of photogelatino-graphy and Woodburytypy. The salons of photography at the Louvre constitute a veritable gallery of copies, in proximity to the original works. Artists, and the public in general, have thus a sure means of immediate comparison, and consequently of correction if, in the copy, some details were imperfect, which might happen despite of the perfection of the present process. Still better than that, it is possible to buy in the Louvre itself these copies at prices agreed upon by the administration of the Fine Arts, and at a figure within the reach of all.

The new institution, for we have here a veritable institution, is a proof of the moral progress made by the photographic art which we now find in the Louvre in company with the rarest specimens of the creative arts, and holding there a high rank.

No one, a few years ago, would have thought this possible, and to understand the motives which have caused the direction of the Fine Arts to give to photography a lodgement in the most important of our national galleries, it is only necessary to compare the photographic works made a few years ago, and the reproductions due to

the new processes so admirably perfected. We do not exactly know the conditions exacted from Messrs. Braun & Co. in exchange for the important privilege granted to them, but we know, however, that they are to make seven thousand negatives, and each one of these negatives is to be accepted by the administration of the Fine Arts, to which it will revert at the expiration of thirty years; moreover, the selling price of the prints has been fixed upon by the administration at as low a price as possible. It must be admitted that a house of this importance, to which we already owe so large a collection of photographs of all the galleries of Europe, held the first rank among those who could treat with the Government, and who could do so under such onerous conditions. Onerous they are, inasmuch as in the seven thousand clichés in question there are not more than one thousand or twelve hundred which will find a remunerative sale; as to the others, they will simply serve to enable the administration to create a complete and richly illustrated catalogue of all the galleries of the Louvre. Certainly a very interesting result, but probably expensive for the house with which the contract has been made. Messrs. Braun & Co., in our opinion, will have more glory than profit, but glory is worthy of some sacrifices.

OUR PICTURE.

AGREEABLE to promise, we embellish the first number of our middle month impressions with an example of work by one of the many processes which have grown from photography. The subject admirably shows the wonderful capabilities of modern negative making, giving as it does those attractive gradations of tint from black to white which are so essential to the making up of a round, rich, effective photograph. It was this quality, as a study, that drew us to choose it for our present purpose. It is a marvel in its way. Again, it shows us the power of modern photography to catch the finest elements of human expression, and is, therefore, a double success. It is of the class known as "Photogravure"—a print made in the press like steel engravings from a metal

plate produced by means of a photographic image and process engraving, as worked out by Mr. E. Edwards of the Photogravure Co., New York and Brooklyn. As such, it is also a marvel, and the first of its kind which has been given in any photo. magazine, we believe.

The process secures all that the negative will yield, and the printing method, preserving as it does a matt surface, renders exquisite softness. It is the perfection of photo-process printing.

The subject of the picture represents that witching character of prodigious birth, of troubling life, and dreadful death, the prophetess "Mother Shipton" of ye ancient Yorkshire, England, caught in the very act of lighting herself into some dark scheme with a grin upon her repulsive face that makes one shudder.

Ancient history informs us that a clap of thunder broke the heavens just as she was born and a great tempest followed, and that "Her Cheeks were of a black swarthy Complexion, much like a mixture of the Black and yellow jaundies; wrinkled, shrivelled and very hollow, insomuch, that as the Ribs of her body, so the impression of her teeth were easily to be discerned, through both sides of her face, answering one side to the other, like the notches in a Valley, excepting only two of them which stood quite out of her mouth, in imitation of the Tushes of a wild Bore, or the Tooth of an Elephant, a thing so strange in an Infant that no age can parallel: Her Chin was of the same complexion as her Face, turning up towards her mouth, and shrieks being heard, from an unknown cause, as if there had been a more than ordinary correspondence between her Teeth and it."

Some of her prophecies were verified in the most remarkable manner, especially such as referred to English and French history. She also "foretold the use of steam, the invention of the telegraph (the use of the skylight for photography, see lines 1 and 2, below), and most wondrous things beside," as we learn from the following:

"A house of glass shall come to pass
In England—but alas!
War will follow with the work
In the land of the Pagan and Turk;

And State and State in fierce strife
Will seek each others life.
But when the North shall divide the South,
An Eagle shall build in the Lion's mouth."

"Carriages without horses shall go,
And accidents fill the world with woe.
Primrose Hill in London shall be,
And in its centre a Bishop's See."
"Around the world thoughts shall fly,
In the twinkling of an eye."

"Water shall yet more wonders do,
Now strange, yet shall be true,
The world upside down shall be;
And gold found at the root of tree."

"Through hills men shall ride,
And no horse or ass be by his side.
Under water men shall walk.
Shall ride, shall sleep, shall be seen,
In white, in black, in green."

"Iron in the water shall float,
As easy as a wooden boat.
Gold shall be found, and found
In a land that's not now known."

A life of trouble giving and trouble taking Mother Shipton "lived till she was of an extraordinary Age; and though she was generally believed to be a witch, yet all persons whatever, that either saw or heard of her, had her in great esteem: and her memory to this day is much honored by those of her own Country."

A stone was erected near *Clifton*, about a Mile from the city of *York*, from which the following is taken.

EPITAPH.

"Here lyes she who never ly'd,
Whose skill often has been try'd,
Her Prophecies shall still survive,
And ever keep her name alive."

In many parts yet we hear it said "if what Mother Shipton says is true" this or that is coming to pass.

The old lady, as presented to us is by no means attractive, but as a picture she is as wonderful a study as was her humanity.

The original negative was made by Falk, the enterprising and talented New York photographer.

Next middle month a picture by a different process will be given.

COMPOSITION.

BY XANTHUS SMITH.

THE word composition is used by artists to signify the arranging or grouping of objects so as to form a harmonious whole.

There seems to be a disposition in nature to draw objects together. We see mountains in groups or ranges, forests in masses, trees in clumps, and animals in herds, and men collect in hamlets and communities, so that a massing or grouping of objects is only in harmony with what we most usually see, and what seems to be Nature's intent.

As the subject of composition in its higher form, wherein it deals with the grand historical, may be said to be almost entirely without the pale of photography, I shall not deal with it at present. It is a subject, too, the principles of which have been so thoroughly and ably gone over, and the examples by the masters in it are so familiar to all who have devoted any attention whatever to art, that I feel it will be more useful to confine my present remarks to those simple subjects which come under the head of *genre* or domestic scenes, and to landscape. And as the great masters of old have been so much used in illustration, I will direct the attention to works by those eminent in art who are living, or who have but recently passed away, which while it will be newer in showing applications of the great principles which the Italian masters had to dig out and in a measure create, and we have had spread before us for use for two centuries, ought also to be more encouraging as showing that the chances for producing fine works of art are about us yet, thanks to Nature's infinite variety. She has furnished us with an inexhaustible store, and if we will but go faithfully to her and industriously use the intellect which has been granted us and apply the rules which have been sought out by the great who have preceded us, our efforts must certainly meet with success.

The photographer is fortunate, inasmuch as that, not having to deal with the imaginative, he must not necessarily be a genius, and as he must always of necessity be drawing upon Nature's inexhaustible stores, he will have no fear of falling into those mannerisms, which while they often at first

make the work of the creative geniuses attractive in a high degree, ultimately cause an insipidity which leads to disgust. The photograph is to so great an extent Nature's work that we must always see her individuality stamped upon it, and read in it to a greater or less extent those details of character which give such interest to pictures.

Beginning with one figure, one of the simplest subjects that we can have, to make a picture, for a human figure with its component parts of interest, if at all picturesquely clothed, may make a complete picture, we have at once an opportunity to show taste and skill in so disposing the head and limbs that by reversing the lines of action and varying the curves and angles, we get grace and dignity instead of stiffness and vulgarity. Then, suppose we begin to introduce some surrounding objects to give subject for thought and increased interest; we choose those that will be in harmony with the subject of our work. About an intellectual man we introduce features familiar in a library, we would surround a hunter with implements of the chase, a traveller or seafaring man should have objects indicative of those callings, and our next aim would be to dispose these accessories in such a manner that, while they added to the fulness and interest of the picture, they would be in entire subservience to our main feature. This simple beginning of telling a story should be led on and built upon as we proceed; for, although a work may be complete and beautiful simply as a work of art and without telling a story, how infinitely wider will its range of interest be if it does tell a story, and this additional interest need never detract from it as a work of art. If we were advancing further and introducing two figures in our picture, we surely would not have them sitting bolt upright and staring at us, but by so posing them as to express the conveying between them of some sentiment or emotion, or by the introduction of some object of interest common to them uniting them, we would have at once made an advance towards a picture; and so we go on introducing more figures and more objects necessary to give point and fulness to our tale. But then our difficulties increase, for in proportion as we gain

intricacy, variety, and interest, we are apt to lose that simplicity which makes a work striking and impressive; our various objects begin to scatter the attention and divert it from the main feature or point of our story. So we must ever keep it foremost in our minds that, if it be possible to do so, we must have a main central feature or group, with other features or objects taking second, third, and fourth places, the interest dying out as we approach the edges of our picture.

It has been customary to classify composition into particular forms, as the pyramidal, diagonal, and circular, putting down points and drawing lines, and making the objects introduced conform to these, and although these rules are very well in a rudimentary way to convey ideas to beginners, and they may be distinctly traced in the compositions of many eminent painters, yet entire reliance upon them and too constant adherence to them would lead to formality and conventionality, and that look of scholastic pedantry in works of art which we have been taught by our advances of late years rather to avoid than to court. And while a master has the skill to conceal such rules in his works, by various artifices, others possessing less talent would have them annoying us by their evidence. Often we see very harmonious and agreeable compositions in which we cannot distinctly trace a conformity to any of these laid down rules. And perhaps we are oftener sure of securing something fine and at the same time more original by endeavoring to avoid what we know to be decidedly bad principles, than in striving to conform to such rules.

As I believe that practical demonstration is of the utmost importance along with theory, and particularly that a chance for direct comparison is invaluable, as conveying, by unity of impression, thoughts which lose their force and directness when conveyed by words, let them be ever so tersely put, I am going to avail myself of Mr. Wilson's now acquired facilities for illustration, and his kindness in devoting me space, and present some examples of good composition, and the reverse, in figure subjects, reserving what I have to offer in regard to landscape compositions for my next article.

Figure 1 is after Inman,* and is a remarkably graceful and agreeable piece of com-

position, direct lines, and sweeping curves, varying and contrasting each other to the

FIG. 1.



FIG. 2.



FIG. 3.

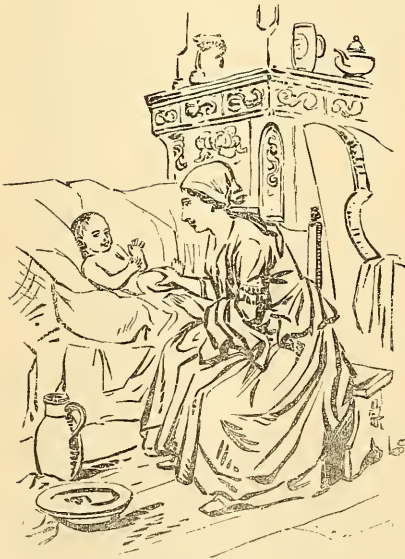


FIG. 4.



* Henry Inman was born at Utica, New York, in 1801, studied painting under Jarvis, and became one of the most successful and distinguished American portrait painters, producing also many admirable figure pieces.

best advantage, and the difficult matter of casting the drapery of the skirt is a lesson in freedom and grace.

Figure 2, after Farrier, is a good example of compact grouping of figures and sur-

rounding accessories. It is a simple subject, called "Reading the Ballad," and one which, with most of the objects introduced, would be readily within the reach of photographers and might be tried in several varied forms.

Figure 3 is a remarkably agreeable arrangement. The picturesqueness of the mother, and the objects introduced about her being very fortunate in their combination. It is from a very highly finished work by Meyerheim.

Figure 4 is an example taken from the illustrated catalogue of the Salon for 1884, and shows a remarkable deviation from all the good rules of art. The principal figure is composed of a series of angles and straight lines running parallel with each other; the tree is a sort of inverted repetition of the figure, and being of equal size and force of relief makes exactly equal impression on the eye. The fence runs through the picture from side to side, parallel with the top line, cutting the tree at right angles where the limbs commence, the lady's hair at the top and bottom, and the man's head and the back of his chair, in such a manner as to appear to tack them all together. The near edge of the garden plot under the fence forms another parallel band, taking the lady's shoulder, the break in the newspaper, the lower fork of the tree, the seat of the chair, and top of the further child's head. Then dividing the picture horizontally again, we have the group of chickens, the elbow, the hand, and termination of the paper, termination of the tree stem, head of the nearer child, and basket and feet of the further, and lastly the hat, bottom of the skirt, and child's playthings. See what a number of horizontal bands this makes running through the picture. The principal figure is robbed of the precedence it should have by the emphasis given to the tree and the several objects introduced upon either side, while they precisely balance each other in importance, make a sum total equal to the lady and tree. Where can the eye find a single agreeable line in this picture, or a passage of repose?

(To be continued.)

SOCIETY GOSSIP.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK—FIRST WINTER LANTERN EXHIBITION, 1885-86.—On the evening of December 9th, the first winter lantern exhibition, comprising mostly the work of members, was given at the Society's rooms, 1260 Broadway, but on account of the inclement weather the attendance was not as great as usual; nevertheless, several ladies were present and enjoyed the entertainment.

Mr. Beach, assisted by Mr. George H. Ripley and Mr. C. W. Canfield, operated the lantern and announced the subjects as the pictures were thrown upon the screen. He had added an improvement to the lantern in the shape of a five-inch single plano-convex condenser placed in close proximity to the rear of the six and one-half inch double condenser, so arranged that it could be readily adjusted, both in respect to the light and condensers. The additional brilliancy in the illumination of the pictures on the screen was quite marked, the disk being at least one-third brighter.

Mr. L. D. Mapes had some excellent slides of bathing and sailing scenes at Shelter Island; one or two pictures of sailboats under full sail with a high wind, taken against the light, being quite good in effect and composition. Another of a porpoise partially out of the water was remarkable as illustrating what curious things the detective camera can catch. Still another was a view looking directly down from the top of the Coney Island iron tower. A picture of a landscape, including one or two stone fences and two dogs in the foreground, attracted attention on account of its clearness and the peculiar pleasant bluish tone it possessed.

The slide was too thin in the first instance, but had been slightly intensified with the Monckhoven bichloride and cyanide of silver intensifier, which gave it the agreeable tone mentioned without in any way blocking up the high lights.

A few instantaneous shots by Mr. Atkinson were interesting because of their sharpness and brilliancy. One, of a schooner sailing up the East River under full sail,

WILSON'S *Photographies* has started its fifth thousand. Unparalleled sale.

was excellent; another of a group of children, with their colored nurse, in Prospect Park, was amusing.

A view from the New York depot of the Brooklyn Bridge, looking up the track toward the towers, showed excellent lines, being sharp in the foreground and distance.

Dr. P. H. Mason, of Peekskill, sent some very pretty chloride slides, warm in tone, and beautifully clear in the high lights. Those that were particularly striking were Henry Ward Beecher's residence, and entrance to his grounds, in Peekskill; "The Coaching Party," a lot of raggedly dressed children, with a goat harnessed to a small wagon in front of a dilapidated shanty, very nicely posed and arranged; "First View of Oscawana Lake," excellent distant effects; "A Tiny Mountain Stream;" "The Old Mill," an old water-wheel standing beside the ruined walls of the mill—very picturesque; and lastly, "On Peekskill Hollow Creek," the same view which took the diploma for class of "Rustic Bridge." The fine detail, perfect reflection of the mill in the distance, and foliage in the foreground, in the water, were beautiful to look at, and elicited applause. The slide was well made, all the beauty in the negative having been fully brought out.

A slide contributed by Mr. Francis Blake, entitled "Sheep Shearing," was novel, but was a trifle thin for the bright lime light.

Several instantaneous views by Mr. H. G. Cook were shown. A slide entitled "Decoration Day in New York" was extremely good, of a military band at the head of a procession. The various attitudes of the players, and the crowd of people looking on, were quite lifelike. The lighting was also soft and agreeable.

A number of slides contributed by Mr. R. A. C. Smith, of street scenes in Havana, Cuba, were excellent for detail and sharpness, as well as, in some respects, humorous.

The manner of yoking oxen was shown, and an ox-team in motion was particularly admired. Pictures of Havana natives, and of horses carrying fodder to market, were interesting, as depicting the life of that peculiar city. The Havana package express was amusing—a raggedly dressed man car-

rying on a stick across his shoulders a miscellaneous cargo of bundles, tin pails, etc.

Several excellent pictures on the East River were shown.

A picture of Sidney Dillon's black poodle dogs, named Punch and Judy, was quite comical. All of the views were made with Anthony's detective camera. They showed good work, as every picture was sharp and clear.

The choice pictures of the evening were those of Mr. James Brush. "The Picaninies," "Niagara Falls in Winter," "Saco Valley, N. H.," "Views about Lake Mohonk, N. Y.," "The Delaware Water Gap," "Dog Sitting in a Willow Chair," beautifully clear and sharp, "After Supper," "The Berry Black Boy," and "Little Girl on a White Pony," all elicited applause, not only for their beauty, but the general uniformity of their tone and exquisite detail.

Views by Mr. A. D. Fisk, of General Grant's funeral procession, and his fine view of the Flood Rock explosion, as well as the same by Mr. William Chamberlain, were interesting historically.

Mr. Houston had a slide of General Grant's guard at Mount McGregor.

Mr. Beach exhibited slides of the Capitol at Hartford Conn., much admired for its picturesque qualities, also views at West Point, N. Y., and of Mr. Brush in the act of taking his noted picture of the white pony, showing how he did it.

The exhibition was brought to a close by the showing of a few slides made by Mr. G. H. Ripley from the negatives belonging to the International Photographic Exchange Club, made upon a new plate designed to be developed with dry pyro and carbonate of soda.

Some of these were extremely picturesque, and the different tones which could be made by a long or short exposure was very plainly pointed out, and exhibited by duplicate slides made from the same negatives. At 10 p. m. the exhibition terminated.

THE PHOTOGRAPHIC SOCIETY OF
PHILADELPHIA, EXHIBITION OF 1886.

Exhibitors are hereby notified that their pictures will be ready for delivery, and may be called for at the Academy of Fine Arts,

on Tuesday or Wednesday, January 19th or 20th. Messengers must in all cases be provided with written orders. All pictures not removed on these days will be delivered to the owners at their expense.

ROBERT S. REDFIELD, *Secretary*,
1601 Callowhill Street.

THE room of the Photographic Society of Philadelphia was crowded to overflowing on Wednesday evening, January 6th. Every member seemed desirous of casting a ballot for the officers for the ensuing year. A large number of votes were polled, resulting in the election of the following officers:

President.—Frederick Graff.

Vice-Presidents.—John G. Bullock and J. H. Burroughs.

Secretary.—Robert S. Redfield.

Treasurer.—S. Fisher Corliss.

The following committees were also chosen:

Committee on Membership: H. T. Coates, F. Bement, E. A. Walker, E. W. Keen, W. Le Springs, G. C. Morris, C. R. Pancoast, W. A. Dripps, and J. H. Burroughs.

Excursion Committee.—C. Barrington, W. Hacker, and F. T. Fassett.

Committee on Revision of Minutes.—J. C. Browne, J. G. Bullock, and R. S. Redfield.

Executive Committee.—J. G. Bullock, G. C. Morris, and C. R. Pancoast.

The venerable President, Mr. Bates, on retiring from the Chair, made a very appropriate address to the members, and the newly elected President, Mr. Graff, spoke of his connection with the Society from its origin, and of having been witness of the growth of their favorite art from the day of the daguerrotype to the triumph of gelatine, of the rapid progress and wide extension of the borders of photography, and of the glorious future which might be expected in the next quarter of a century. He also spoke of his pleasant relation with the members from its infancy, and of the great pleasure it afforded him to preside once more over the Society, now in its manhood. The addresses of Messrs. Bates and Graff were received with hearty applause.

The various committees reported. The Committee on Exhibition announced that a large and fine collection of pictures had

been received, and everything promised a very fine exhibition, which is to be held at the Pennsylvania Academy of Fine Arts, beginning Monday, January 11th.

A motion was made by Mr. Coates that all processes, appliances, etc., which anyone might desire to bring to the notice of the Society, should be previously submitted to a committee, who should decide whether such would be of interest to the Society. The motion was lost because it was thought that the task would be too great for any committee, and might also hamper the freedom necessary for scientific discussion.

Mr. George H. Coughton asked that he might be allowed to postpone the reading of his paper upon "Enlarged Reproduction" until the next monthly meeting, owing to the lateness of the hour. The reading was accordingly adjourned until the February meeting.

There was no exhibition of slides. Mr. Walmsley showed an enlarging camera, but deferred a practical illustration of the same until the next meeting.

Dr. Wilson exhibited a number of admirable photographs taken with a \$14.00 outfit of the Rochester Optical Company, and also a bound album of photographs, to which the President called special attention for the admirable manner in which the photographs were mounted, so as to insure perfect flatness in the album without the slightest trace of wrinkling. Dr. Wilson explained to the members his ingenious method of mounting.

The meeting adjourned at a late hour.

THE HUMOR OF IT.

HARD TO PLEASE.

Snooks has his picture taken by a photographer, but refuses to accept it. After a second sitting, he returns. "Come," said the artist, "you told me the first time that the picture did not look like you, and now?"

"Well, now, it looks too much like me."
—*From the French.*

MR. "THEODORE CHILD," a would-be-famous correspondent of some out-of-focus daily newspapers, such as the *Sun*, the *Star*,

and other celestial sheets "too good for *this* world," or the *New York World*, characterizes the new enterprise on the part of many good newspapers of illustrating their columns by means of photo-engraving, as having a tendency to "bastardize our daily journalism."

Now this is really funny—it is childish; for photography is the legitimate mother of this new pictorial child, and old Sun is its father. Do you fix, my child, The—odorous.

HER PHOTOGRAPH.

Quite carelessly and with a laugh
She handed me her photograph,
With, "It is horrid—but—if you
Insist, don't criticise it too."

Of course I knew she didn't mean
A word she said. With pleasure keen,
She couldn't hide, she watched me while
I gazed in wonder at her style.

There, like a queen, she was arrayed;
Her sealskin sacque was well displayed
O'er satin dress with royal train,
And earrings, pin, and watch and chain.

My admiration unconcealed,
At so much elegance revealed,
Gave her the most exquisite joy,
Until rushed in her awful boy.

"Oh, ma! Pa says you make him laugh
A-showing folks your photograph—
That sacque and dress and watch, you know,
Your borrowed just to make a show."

—H. C. Dodge in *Goodall's Sun*.

ART is everywhere. Mr. John L. Sullivan, Mr. Muldoon, Mr. Charles Mitchell, and Mr. Dominick McCaffrey, the renowned plug-uglies and wrestlers, have become teachers of Grecian art at several of our New York minstrel shows and theatres.

Their renditions are a little heavy, but some of our best photographers will shortly take them in hand, and teach them how to pose less emphatically. The next sensation for us will be "studies" of these Emerald Isle Greeks. Mr. Naegeli will no doubt find them.

AMATEUR photographer (on his way to the Boston Society meeting), laughingly: "Yes, I took to photography quite naturally.

I was vaccinated from a collodion vial, you know." Friend (grimly): "The world would have been saved much æsthetic misery if you had been vaccinated from the residue barrel."

AN AMATEUR DEVELOPMENT.

Nettie (crying)—"Everything is upset now, dear, and I am going to take cyanide."

"Why, what could have happened?"

"Well, you know, dear, Pa said I might invite him here when I showed him the view Arthur made of us at Long Branch. We had a nice dinner, and Pa was so gentle with Arthur, and seemed to like him so much. But after dinner they got talking photography, and Arthur said any m-man w-who (boo-hoo) w-would dirty his f-fingers with pa-pa-pyro, when he could use ox-hay-hay-alate, was no foo-foo-photographer! And then Laura darling, Pa showed him the d-o-o-r. Boo-hoo-hoo!"

A "YOUNG PHOTOGRAPHER," in the northwest, asks to "become a regular correspondent of our middle-month issue." He describes, in his first contribution, the finding of a sulphuret mine in Dakota, and an ammonia well in Arizona which yields 10,000 gallons a day. We have engaged him exclusively in order that he may no longer be our foe.

STORIES about poor, dead Josh Billings are going about in plenty now. Here is a true one or two:

No photographer could ever arouse him from a half-sad, serio-comic expression. Once genial father Bogardus tried it, when the inexpressible humorist broke the exposure by saying, "Mr. Bogardus, do I look like a missionary?"

We often crossed one another's paths in the White Mountain Glen, New Hampshire, as we frequented the same haunts.

He had a faculty of raising and lowering his neck, goose-like, so as to change his height from four to six inches. One day we walked a safe distance behind him for some time, gathering quiet comfort from the peculiar trick described. When he discovered our "little bisness" he offered to stand "as foreground" in a picture. No focus could be obtained on him, for no sooner was

the slide drawn than his head would rise and overlook the camera. We never got him in focus.

At a late meeting of the Birmingham Society a lantern exhibition was held, and among other things shown was a picture called "the lake upon the banks of which Prof. Tyndall has built his residence." Whereupon *The Amateur Photographer* says: "It is well, however, to call a spade a spade. Which is 'the lake upon,' etc.? We know. But every one doesn't who will read the report."

Ha! stupid *A. P.*, know you not that the *Club* is trump with you now, and not "a spade."

And again our punstrous contemporary stumbles. He comments thus: "We have received the first number of the *Photographic Beacon*, with which is incorporated the *Practical Photographer*. It is edited by Dr. John Nicol. The first number shows considerable vitality; and, for an American paper, an amount of modesty quite surprising."

Now, for an *English* paper to make such a remark as this evinces more than amateur humor; for, as Dr. Nicol confesses, he was 40 years a disciple of our art in Great Britain, and for 25 years on the staff of the *British Journal of Photography*. Where did he get his "amount of modesty?"

ART AND PHOTOGRAPHY.

I.—INTRODUCTORY AND EXPLANATORY.

BY G. H. CROUGHTON.

It is not my purpose in this series of articles to discuss the much vexed question of the art status of photography or photographers. Whether photography can be elevated into a position among the fine arts, or photographers be entitled to the name of artists, is a question which each must decide for himself. My task is to impart in a few practical articles a knowledge of the art rules which should govern the photographer in the production of his work, whether he be portraitist, landscapist, professional, or amateur, and this I shall endeavor to do in plain language without the confusing art

technicalities which are apt to embarrass those unacquainted with them.

There are doubtless books enough and to spare devoted to art instruction; but these are scarcely fitted to the wants of photographers, many of whom having commenced the practice of photography without having had the opportunity of acquiring any knowledge of art, find that the rapid march of art knowledge among the public, their patrons, makes it necessary that they should produce work of a better quality, artistically, to keep pace with the times. The multiplication of technical art schools, and the general increase in art knowledge and taste, make it harder for the photographer who is not an artist to give satisfaction, and harder to get a living; he has no time to go to an art school; nor is it necessary that he should go through a course of freehand drawing, shading, etc., which is wanted to educate the hand of those who want to produce pictures in crayon or color. With him it is the brain and eye which have to be educated that he may know what he wants to get, and then how to get it.

This it is I have undertaken to do in these articles. As a graduate in the National Art School of England, connected with the South Kensington Museum, London, and a pupil of Thos. Sidney Cooper, R.A., I bring to this work many years' experience as a painter, and a knowledge of art acquired in the best schools. Combined with this is the fact that I was brought up in the midst of photography, my father being one of the earliest makers of photographic cameras in the city of London, and I can just remember the excitement and revolution made in that branch of the business by the introduction of the collodion process, by Scott Archer. This much by way of introduction.

In dealing with this subject, I do not propose to confine myself to the art side of the subject only. I shall go practically into the matter both artistically and photographically. For instance, where I have occasion to speak of the rules governing the artistic composition of the lines, or the distribution of the light and shade of a picture, I shall not only illustrate, by pen and pencil, the rule I wish to enforce, but shall take the

photographer, so to speak, into the skylight and practically demonstrate how these effects can be secured photographically. Nor shall I confine myself to the skylight, but for the benefit of those amateurs who wish to go in for home photography a chapter will be devoted to parlor portraiture. I propose also to form (upon paper) a sort of photographic sketch club, and, taking my readers with me, go out into the fields and illustrate the application of art rules to landscape photography; to accomplish this the articles will be illustrated by cuts, from photographs and drawings, made especially for them, the editor (always lavish where it is anything that will make his journal more useful to his subscribers) having directed me to spare no expense in the way of drawings and cuts, where they may be necessary, to illustrate my meaning.

Having thus far indicated the path I intend to pursue, the next article will commence the practical part of the matter with a chapter upon linear composition.

A NEW PICTURE.

WE have the pleasure of announcing a new picture, made upon a new plate manufactured by the Phenix Plate Co., Worcester, Mass., and to be known in the market as the *Argentic Dry-plate* picture.

Among the desirable advantages are rapidity, cleanliness in manipulation, permanency, certainty of good results, absence of all pinholes, metallic stains, coloring, fog, frilling, and other dry-plate ills.

The exposure may be made in two seconds, dried quickly, varnished, and in ten minutes after may be delivered to the patron.

Almost any ammonia developer may be used successfully with these plates, but it is claimed that greater rapidity and more uniform results are obtainable by using the Phenix stock solution.

The formula is thus:

No. 1.

Pyrogallic acid	1 ounce.
Water	12 ounces.
Citric acid	30 grains.

No. 2, Phenix stock solution. (It is important that No. 2 be kept well corked.)

Developer.

Water	4 ounces.
No. 1	2 drachms.
No. 2	4 "

This mixture may be used over and over, but each time will work slower.

An important thing in this new picture is to secure soft and pure whites. To do so, the development advised must be followed carefully.

The developing should be discontinued as soon as the outlines of the picture are fairly observable.

They should be permitted to remain in the fixing-bath until every trace of the bromide solution is eliminated.

We have been shown some fine examples of the pictures, and bespeak a good future for them. They will afford photographers an opportunity, while the thing is new, to secure better prices; and they will become very popular among the amateurs because of the ease with which they may be manipulated, and the facility with which they may be finished.

They are made of all regular sizes, from $3\frac{1}{4} \times 4\frac{1}{4}$ to 10×14 inches, and all the dealers supply them.

We hope to give further information concerning them when, after our experiments, we find out more about them.

VIEWS FROM MY OFFICE WINDOW.

MY window overlooks Union Square, and is on the third floor of the "Domestic" Building, No. 853 Broadway, corner of Fourteenth Street. My first editorial look from it was on the morning of January 2d. Rather might it have been on the 2d of October, so sunshiny was it, and so balmy the air; only the sun had not reached the streets so early as it does in October, and the shadows were longer than in autumn. Although wholly different, it made me think of an April morning in Petra; for here is an area with a stream (of people) crossing it, and its sides are high, and a grand collection of art studies is here for our enjoyment. Let us look at some of them.

Away over on the left, on the top of the house, is a menagerie of direct printing

solar cameras; they are Rockwood's. As they stand there waiting for the sun to come, they remind me of how the three-day old robins used to look when I climbed up a pear or a poplar tree to peep into their cosy home, and they held up their heads and opened wide their horrid mouths to beseech for a blessing which they could not see. "Ready for business," seemed even then to shine from the plump cheeks of those grasping condensers. A busy throng was yet going to and fro at Mr. Rockwood's door, no doubt after the pictures which were "promised for holiday presents," but "which could not be printed because of the bad weather." What a pity Christmas does not come in July, when it is dull!

Let me look through the field-glass a moment at Mr. Rockwood's "door show"—and dog show. The first thing I see is a sharply focussed pug-dog, with a sort of a "Do you mean to say that I don't pay for what I eat" look in his face, which is real cute. Then there is a group of a snarly looking dog and a well-behaved dog together; a lovely little girl acting mother to her tiny brother, sweet and pathetic; three loving girls in a group, which suggests angels—*little* girls; a happy under-an-umbrella group is a good photograph; a boy crying, with a "hey! say!—this is too long a sitting for anything" look behind his tears. One tiny miniature gives the only bit of *color* to the crowd, until I focus on the landscapes on the other side of the entrance, and then I see more. Will some one, through Queries, Conundrums, and Conclusions, tell me why those prints are so yellow? Is it because the sun has fairer play at them? There is a grand Cathedral interior picture there, too. I must some day get the details of its production. Mr. Rockwood is an excellent photographer. A few steps from his studio is the publication office of the *Art Amateur*. Mr. Rockwood is the editor of the photographic department.

I see Sarony's name a little beyond. But first look this way. See? Another photographic studio—that of Joergen & Rowe, who display a series of fine heads at their door, and some excellent colored work. How many there are now who produce admirable portraits!

Almost under my window, at No. 46 East Fourteenth Street, is the studio of Naegeli. His display is away out on the edge of the pavement, and an attractive one it is. "The new departure" is well illustrated by a series of statuesque, classic groups. The characters (mostly female) are clothed in white, close-fitting raiment, and are posed to represent "Diana at the chase," "Clio recording history," "Apollo wooing Psyche," "The three graces," "The nine muses," and so on. Great care in posing and lighting is very evident, but the choice of models has not been the happiest—*i. e.*, they are not good models, in figure or face, nor do they enter into the spirit of the occasion. But, then, there's the trouble in attempting that class of representations. Mr. Naegeli's portraiture is excellent, and we shall look at him again from the window.

What lots of things there are to see from here! There comes a car crowded with business people, and with my reflector I am able to recognize Mr. Edward Anthony, Col. V. W. Wilcox, and Mr. R. A. Anthony, all speeding down from their homes to their busy mart at 591 Broadway. And there is the greatest picture of them all yet—an auctioneer's bellman. My, what a picture! His back is turned towards me; his feet are spread wide apart, that he may stand the shock of his work; up flies the bell in his right hand, and when it falls again, up goes the empty left hand, to balance the composition of the rickety-rickering. Did you ever try it, or try to follow it mentally? Do. It is more confusing than counting the clicks of the Eastman Walker roller-holder. You should put your whole mind to it whenever you attempt either. The bellman's ragged suit, his æsthetic lines, his artistic execution, haunt me, tempt me, try my mettle. I'm going down with the "detective" to get him some time.

The Photographic Times begins the new year reduced in size (for the better) and with a new and beautifully engraved cover. It is issued weekly, and should not fail to be the companion of all live photographers. Sample copy free. The literary quality of the *Times* is also much improved. We club with it for 1886 at \$6.50.

THE EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

Up to the present writing we have only been able to take "a preliminary drive" among the contributions to this exhibition, now open at the Academy of Fine Arts, Philadelphia.

Indeed the pictures were not all unpacked, to say nothing about being hung, when we made our notes for the present writing.

We shall go over the whole thing again, therefore, and systematically give all a just showing. So attractive were they that we were drawn into giving the most of the time we had at our command to the foreign exhibits. These are largely from England.

Mr. Geo. Bankart, Leicester, contributes a large series of varied subjects, mounted without cockling, upon very thin sheets, with a success which we hope he will tell us how he reaches.

His photography is first class, and to us the gems of his collection seemed to be a view of "Pike Pool," the actual scene in Isaac Walton's "Complete Angler," of the conversation between Viator and Piscator. A view of Von Gelder's monument to the Duchess of Montague, is also a splendid bit of marble work.

Messrs. G. West & Son (London?) send a grand collection of 8x10 and 10x12 views of yachts which have more "go" to them than such pictures generally have. The bellied sail, and the ploughing bow, and the lean-to mizzen, all relieve one of the stand-still impression which instantaneous marine views so often give us.

Lt. C. E. Gladstone, of the Royal Navy, shows a superb collection of Interiors, among which is one of a cathedral with stained glass windows, which has been admirably caught by the isochromatic process.

Col. J. Waterhouse, Calcutta, India, sends a variety of Heliogravure prints from his famous negatives of art subjects.

Capt. J. Peters, R. C. A., Kingston, Ontario, exhibits a large collection of small (detective?) pictures of scenes and sights in Canada that are very fine. "A Woolwich Infant," and a view on the "Plains of Abraham," are among the best taken.

From Mr. J. P. Gibson, Hexham, England, is a remarkably fine series of views. One is "The Iron Gate on the Alten," which took the first medal of the Society of the North Counties, but in our opinion is unrivalled by other fine things by the same *artist*, for artist he is.

Mr. W. W. Winters, Derby, England, contributes several 11 x 14 portraits of ladies, which we have not seen excelled. "Undecided," "Pleasant Thoughts," and "Contemplation," are of the very best, and we shall refer to them again.

Mr. P. H. Emerson, Derby, England, shows a fine picture, entitled "He Cometh Not, She Said." It is a neat conception, well executed. "The Furze Cutter" is another fine thing. "Baiting the Lines" (platinum) and "A Suffolk Marsh," all help to show the versatile talent of Mr. Emerson, and give a refreshing variety of subjects to his admirers.

The Pacific Coast Club is represented by fine contributions from Messrs. George Tashiera, Samuel C. Partridge, and H. B. Phillips, a collection to which we shall return.

Mr. George Wood, Philadelphia, is a large contributor. His "Reading" and his "After the Storm" show the true artist. His collection is a varied one, and will prove a help to all students.

Messrs. Roberts & Fellows, 1125 Chestnut Street, Philadelphia, exhibit three enlargements on the Eastman bromide paper, which attract much attention. One is a portrait of a child; a second is a view of a mountain homestead in North Carolina, which is to be our picture "South" at some future time, and the third is a group of five donkeys, which might be termed "All Puzzled." It is admirable and wonderful.

Mr. W. B. Kruse, Philadelphia, shows views and statuary.

Mr. C. R. Pancoast, Philadelphia, makes a grand showing of his views of India—of the Elephanta caves, Bombay, Calcutta, and the Taj Mahal.

Mr. John E. Dumont, Rochester, N. Y., is a generous contributor. The gem of his collection is, as in the New York Exhibition, his "Listening to the Birds."

We only have space further now to mention the following:

Enlargements on carbon by G. E. Cabot, Boston; landscapes by C. H. Redfield; another series by John G. Bullock; a variety by Dr. J. J. Kirkbride; some glass transparencies by J. Bartlett; and some transparencies on opal by W. H. Rau & Co., all of Philadelphia, together with a fine collection from F. G. Rogers, Moosehead Lake, Maine.

Among the lady contributors, we noticed the work of Miss A. H. Chace, R. I.; Miss N. Latham, England; Miss Jessie Gibson, Scotland; Miss J. R. Hooper, Boston; Miss Mary Vaux, Philadelphia; and Miss E. M. Tatham, Philadelphia, to all of which we shall give our best attention presently.

Over one hundred exhibitors are represented in this exhibition, which surely far excels any Society exhibition we have yet had in America. It is open to the public, and every one who can develop a plate or expose one will learn something of value by giving it careful inspection.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

THE Hyde Photographic Society is running into the study of art principles. Good! *Much good!*

THE Bury Photographic and Art Club combines the two "elements" without an explosion. Platinotype printing is popular in Bury.

THE Derby Photographic Society, the Glasgow Photographic Association, and the Sheffield Photographic Society all devote much time to the lantern and transparencies therefor. Good!

SOME Brazilian panoramic photographs were shown at a late meeting of the French Photographic Society. They are three and a half feet long, and the plates weigh eighteen pounds.

Photography in France.—There has been so little doing in photography during the last few months that I have not been able to record anything of interest. It is very remarkable that, although in the winter

season there is but a minimum of light, many more interesting results and researches are made. Therefore, while rusticated in summer at watering-places, and exploring picturesque country, work is carried out on the lines laid down by previous invention, resulting from the winter's experience.

At the Photographic Society of Manchester, Mr. Scofield called attention to the necessity of obtaining perfectly pure bromides for photographic use. He asserted that commercial bromides are often very impure, and might be injurious in the manufacture of gelatine emulsion. It is certain, however, that for some years back the bromide of potassium has been generally furnished by the dealers in a remarkably pure state. The same photographer is of the opinion that it is always necessary to note with great care the color of an emulsion seen by transmitted light. When the color is blue, we may be certain that the emulsion is in proper condition.

At the Amateurs' Society of Glasgow, Mr. V. Lang read a paper on ferrous tartrate as a developer for rapid paper (alpha paper). The salt used is not pure, but is obtained by dissolving rapidly in a solution of tartaric acid the precipitate formed by the ammonia in a solution of ferrous sulphate. In using this preparation with Mr. Warnerke's chloride paper, the image was always fogged; but with the alpha paper, upon which he studied the action of a considerable number of the organic salts of iron, Mr. Lang found that none of them gave the same brilliant red tints as obtained by using the solution of the ferrous tartrate. It will be understood that the solution used by the author, under the name of ferrous tartrate, is a mixture of tartrate of iron, ammonia, and sulphate of ammonia, the pure ferrous tartrate being a precipitate more or less insoluble in water.

THE improvement of negative paper still occupies the attention of a considerable number of photographers. Almost all of them complain of the use of castor oil, and many think that vaseline, which we spoke of a few weeks ago, should be preferred. A Glasgow

photographer, Mr. H. Reid, thinks that the best manner of using this last, is as follows: After the negative has been washed and pressed upon a plate of glass it is allowed to dry in this position. It is then coated with vaseline and placed over a flat dish containing boiling-water kept hot by means of a small lamp placed under the dish. In this manner the vaseline is melted and penetrates into the pores of the paper.—*Moniteur*.

At the Cheltenham Photographic Society Mr. W. Beetham read a paper on the "Ferrous Oxalate Developer," illustrated by a series of transparencies on Wratten's ordinary plates. These had received ex-

posures proportional to the numbers 1, 2, 4, etc., and were developed with an amount of bromide increasing in the same proportion. The results showed the great power possessed by potassium bromide of compensating for overexposure. As an example of what can be done with an underexposed plate, two transparencies were shown which had had the same exposure. The first, developed with the ordinary developer, was much underdone, whereas the second, which had been developed with the same developer, with the addition of fifteen drops of a one-half per cent. solution of hypo to two ounces of developer, was quite satisfactory.

Editor's Table.

ITEMS OF NEWS.—The INTERNATIONAL PORTRAIT COMPANY, Columbus, O., sends us a check on the "Bank of Prosperity," for "365 happy days." Mr. F. C. BEACH, 361 Broadway, New York, Manager of the American branch of the INTERNATIONAL PHOTOGRAPHIC EXCHANGE, has sent us a catalogue of the two hundred and fourteen negatives and transparencies received from England in November, 1885. The rules of the branch and a list of the American members are added. We are familiar with many of the subjects, and many of them are gems of Irish, Scotch, Welsh, English, and other British scenery.

USE GOOD CARDBOARD.—Strenuous efforts have been made for some time to "get into the market" an inferior grade of cardboard. Do not use it if you value your reputation. The low grade appears good upon the face, but there is something besides a good face which constitutes a good cardboard. The whole material which enters into its composition should be good, lest its impurities cause the pictures put upon it to fade, the "good face" to secede from the bad body, and the surface to "buckle up" after mounting. It is better to use the well-known cards produced by thirty years' experience, than to take the risk of having your work sent back to you to have repairs made.

DR. H. L. DRAYTON, psychologist, read a very interesting paper on "Baby-faces" recently, which was published in the *Phrenological*

Journal, N. Y., with a dozen illustrations from negatives by H. L. PIETZ, Springfield, Ill. We shall allude to it again. The Doctor's revelations are very interesting, and the pictures entertaining.

A CATALOGUE OF VIEWS AND LANTERN SLIDES (26 pages) has been sent us by Messrs. W. H. RAU & Co., 1206 Chestnut Street, Philadelphia. The series of American views is very extensive, and the foreign collections include some fine work by amateur photographic travellers. Mr. RAU's own war collection is attractive. Slides are supplied also of Mr. HOLMAN's micrographs of the *Amœba Proteus*.

MESSRS. WATKINS & SIMMONS, Pittsfield, Mass., have sent us some very nice examples of their work—portraits and interiors—which do them credit.

PHOTOGRAPHS RECEIVED.—From Mr. E. LONG, Quincy, Ill., an admirably exposed interior view of the Congregational Church of Quincy. From Mr. GEORGE MOORE, Seattle, W. Ty., some lovely cabinets of lovely children. The quality of the negatives is almost as soft and velvety as nature.

L'Amateur Photographe is the title of our new Parisian exchange. It is bright and sprightly, and will find itself useful we are sure. France does not give us as much news as such a grand photographic centre should. Will *L'Amateur* do it?

PROF. KARL KLAUSER, Farmington, Conn., favors us with a "type" picture made from negatives of several of his daughters. It is interesting, soft, and pretty, but we believe a picture of any one of the young ladies taken singly would be far more attractive.

"His Crowning Work" is the title given by a Muskegon, Mich., daily to the following notice of the work of our old-time subscriber and contributor, Mr. WILLIAM McCOMB, of that city, over which we congratulate him:

"Mr. WILLIAM McCOMB, photographic artist, has now on exhibition, at the Central Drug Store, his mammoth group of pioneer settlers and business men of Muskegon, and it is attracting, as well it may, marked attention. It is undoubtedly the crowning work of Mr. McCOMB's long and successful career as a photographic artist. The copy on exhibition is about four by six feet in size, including the frame, and shows the photographs of over four hundred persons, most of them cabinet size, very artistically arranged, and so clearly and handsomely printed as to be easily recognized through the show window from the street, even the smallest of them. It has evidently been a painstaking, patience-trying work, but a great success as well. We hope to see this exhibition copy placed in the City Hall or Public School Library.

"Mr. McCOMB has obtained a copyright for his work, and will proceed to print and place it on sale on handsome and substantial mounts, eighteen by twenty-two inches in size. We predict a large sale for them."

A NEW time-shutter, invented by Mr. E. F. BIRDSALL, of New York, is described in a late issue of the *Scientific American*, with illustrations. It is composed of part of a clock and a metal weight, and seems as efficacious as it is ingenious.

THE leading photographers of Minneapolis, Minn., have organized the "Secret Order of Scientific Photographers," and have favored us with a copy of their constitution and by-laws, through their Secretary, Mr. A. B. RUGG. All photographers in good standing may become members. Photographic growth and protection are its good desires, and we wish it eminent success. Fraternity often holds when nothing else will.

OBITUARY.—We regret to learn of the sudden death of PROF. JOHN C. DRAPER, M.D., LL.D.,

at his home in New York, December 20, 1885. Scarcely fifty years of age, yet, a scion of science, he, like his distinguished father and brother, had been busy for the world's good, and did not forget photography. At the time of his death he was preparing a series of papers for the *Photographic Times*, on "Photographing the Blood." We have all sustained a great loss by this death, and the place of the deceased cannot soon be filled.

THE Third Annual Exhibition of the Boston Society of Amateur Photographers has been held successfully, and creditably as well. Many gems were shown, and the prizes were generously distributed among exhibitors from various sections of our country. We wish we were able now to give a fuller report, but it has not yet been received. Such exhibitions do lots of good, serving as active stimulants to good results.

GOOD WORDS.—When parties have taken a magazine twenty-two consecutive years, it means something when they write such *good words* as are gathered below from some of our recent letters renewing subscription to our magazine for "one year more." We do not fear to lose them, so we give their names and addresses:

YORKVILLE, S. C., December 29, 1885.

Enclosed I send \$6.50, for which you will please renew my subscription to the PHOTOGRAPHER and *Times* as proposed. I am getting old in my business, having been in it for forty odd years, but I am never too old to learn, and having taken your journal for so many years, also the *Times* since its first publication, I should miss their loss very much. I do not see why its publication in New York instead of Philadelphia should make it less interesting. My sympathies have always been with you, and hoping that you may meet with the success you crave, and which your efforts deserve, I remain

Sincerely yours,

J. R. SCHORB.

ST. MARY'S, PA.

Enclosed please find draft, for which please renew my subscription for the PHOTOGRAPHER. I can't afford to do without it; it is the best journal that I have yet seen, and with the double issue it will be immense.

Yours, etc.,

WILLIAM L. PRICE.

JACKSONVILLE, OREGON.

Herewith I send you P. O. order of \$5.50 for PHOTOGRAPHER and *Mosaics* for 1886. I have been a constant subscriber to the PHOTOGRAPHER

ever since it was first published, and would feel a little lonesome without it. Although I have several other photographic periodicals, I like yours the best.

P. BRITT.

SAN FRANCISCO, December 18, 1885.

Enclosed I send you P. O. order for yearly subscription for the PHILADELPHIA PHOTOGRAPHER and the *Times*. I don't wish to be without either. Whilst I was in Sacramento I was a subscriber to your journal almost from the beginning.

Yours, etc.,

JOHN A. TODD.

POTTSVILLE, PA., December 25, 1885.

Enclosed please find check for ten dollars for two year's subscription to the PHILADELPHIA PHOTOGRAPHER for 1886. Please send one copy to E. F. C. DAVIS, Esq., Pottsville, Pa., the other to GEORGE M. BRETZ, Pottsville, Pa.

Yours truly,

GEORGE M. BRETZ.

GENESEO, ILL.

We cannot keep house without the PHOTOGRAPHER. Enclosed find draft for \$5.00 in full, for subscription for 1886.

JOHN BUELL.

CONCORD, N. H.

For several years I have been a regular subscriber for the PHILADELPHIA PHOTOGRAPHER and other photographic journals, and will say right here that your journal is the highest prized by me. Enclosed find check for \$5.50, for which please send me the PHILADELPHIA PHOTOGRAPHER and *Mosaics* for 1886. Cannot keep house without them.

H. C. BAILEY.

A RECENT interview with Mr. G. GENNERT, 54 East Tenth Street, New York, reveals the fact that he is already making efforts to secure a fine display of German photographs at the St. Louis Exhibition. Mr. GENNERT's frequent visits to Germany give him a personal acquaintance with the best artists there, and a decided advantage in securing fine exhibits for our annual fair. Moreover, it secures the importation of the famous "Eagle" brands of albumen papers of various tints so much used and liked all over the land. He will always be looked upon as a benefactor, and a helper to good work.

Photographic Mosaics, 1886, is supplied by SCOVILL MANUFACTURING Co., New York, in neat, stiff-card mailing cases, so that the copies cannot be injured in transit. The *Mosaics*, 1886, are nearly all gone. Order soon.

BRAUN'S PHOTOGRAPHY AT THE LOUVRE.—If those of our subscribers who are interested in the growth of our art, will look into the back volumes of our magazine, they will see that we served as the first agent Mr. BRAUN, Sr., ever had in America, and that in 1873 we visited his establishment, and as his guest received the freedom of it to such an extent as to make important notes concerning it for our magazine. Moreover, an embellishment for the PHILADELPHIA PHOTOGRAPHER was made at Dornach. Since then what marvellous growth! Nothing in our art gives such a wondrous example of the manner in which it has worked its way, even into the æsthetic hearts of the French officials, as has the growth of the Braun establishment.

IN the illustrated *Century* for November we find a very remarkable article from our learned and laborious colleague, Mr. E. L. WILSON, Chief Editor of the PHILADELPHIA PHOTOGRAPHER. This article is headed "A Photographer's Visit to Petra." It is illustrated with magnificent woodcuts from beautiful photographs taken by Mr. E. L. WILSON. These reproductions give an idea of all that is curious and picturesque in this African region, where are found so many imposing ruins, vestiges still living, notwithstanding a past so far removed from us of an epoch when civilization flourished so brilliantly, as is shown by the beauty and the architectural riches of all these monuments.

The photographs brought from Petra by Mr. WILSON are of more importance than the best drawings, as they are the undeniable proofs of admirable realities.—LEON VIDAL, in *Paris Moniteur*.

PROF. W. H. PICKERING, Mass. Institute of Technology, Boston, has favored us with copies of his interesting papers on "Photography of the Infra-red Region of the Spectrum," and on "Methods of Determining the Speed of Photographic Exposers, and Principles involved in the Construction of Photographic Exposers," both exceedingly useful and complete. The latter is illustrated by plates made with a rapid exposser. Both papers were published in the proceedings of the American Academy of Arts and Sciences, JOHN WILSON & SON, publishers, Cambridge, Mass.

MR. A. R. LANNEY has succeeded to the stock business of Mr. D. J. RYAN, Savannah, Ga. Being a practical photographer, he can be of great service to his patrons.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received by the 23d to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.

SEAVEY'S NEW YORK NOVELTIES

FOR YE WINTER

Seavey's Snow-covered Landscapes, Ice Effects, and Cosy Interiors.

LAFAYETTE W. SEAVEY,
Studio, 216 E. 9th St.,
New York.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voightlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

DEAR SIR: For the sake of convenience in the transaction of our rapidly increasing business we have recently removed our books and bookkeeper to our works, corner of Third Avenue and Tenth Street, Brooklyn, to which address please send, hereafter, all bills and correspondence.

Our office at 853 Broadway is still maintained, where we shall be pleased to meet our customers, give prices, estimates, and any other information desired in connection with our various processes.

Respectfully,
THE PHOTOGRAPHURE CO.

ROCKWOOD SOLAR PRINTING CO.

17 Union Square, New York.

TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, *we are not at all dependent on the weather.*

GEORGE H. ROCKWOOD,
Business Manager.

W. F. ASHE
ARTISTIC BACKGROUNDS
AND
ACCESSORIES,

REMOVED TO 68 WEST FOURTH ST.,
4 BLOCKS WEST OF BROADWAY, N. Y.

MY new studio is fitted up with all the modern improvements, and the most refined demands from a critical public can be satisfied. A visit to my establishment, which has the largest showroom, containing the greatest amount of stock of any place in the world, will be gratefully appreciated.

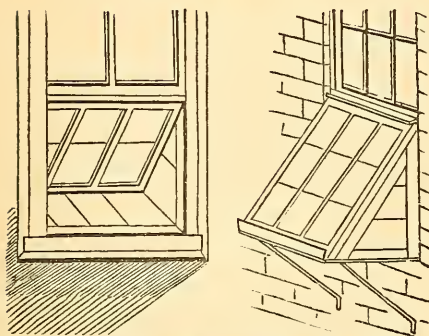
I have again added numerous new designs to my great variety of patterns for *backgrounds* and *accessories*, and keep also in stock a large quantity of goods for parties to select from, saving time and delay on orders.

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Look into it for anything you want; you are pretty sure to find it. The Photographers' Encyclopedia.

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—I undertake to paint them for photographers.
Send for particulars.

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The new book by E. Long, on the art of making portraits in crayon on solar enlargements, covers the entire ground, and is sold for the low price of fifty cents. For sale by

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The fancy-shaped mounts now so fashionable among photographers, require metal guides with which to cut the photographs. They are now kept on hand, and can be supplied in the following shapes, and at the prices mentioned:

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P. S.—We will send the *photo numbers* of *Camera, Field and Book*, for one year to anyone who will contribute an original item that shall be of value to amateur photographers. Or we will send the same to professional or amateur photographers, for one year, who will send us choice specimens of their work. Send such correspondence and specimens by registered mail.

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W. G. COSS,
Lock Box 131, Kenton, Ohio.

A work of convenient art, worthy of a place in office, library, or parlor, is the Columbia Bicycle Calendar, just issued by the POPE MANUFACTURING COMPANY, of Boston. Each day of the year is given upon a separate slip, with a cycling quotation, newsy, of information, or otherwise interesting, in fact, it is, in miniature, a virtual encyclopædia upon this universally utilized "stead of steel." The calendar proper is mounted upon heavy board, upon which is exquisitely executed, in water color effect by Mr. G. H. BUCK, of New York, a charming combination of cycling scenes.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers 392 Bowery, or 487 Eighth Avenue.

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CAUTION.—The genuine and original S & M EXTRA BRILLIANT PAPER always has the *water mark* S & M in every sheet.

A good deal of paper is sold with merely the stamp in the corner. This may be good, and it may not, according to what paper is used by the parties who want to work it off by putting on a stamp that has a reputation.

Look through the paper for the water mark.

E. & H. T. ANTHONY & Co.

AUSTRALIA.

OPERATOR.—Wanted undoubted first-class operator, capable of producing high-class work and throwing art into a negative, for a leading gallery in Sydney, New South Wales. Applicants must be well up in wet and dry plates and the work of the dark-room, and must have been engaged in a leading New York or other good gallery in the States, leaning towards man capable of retouching. Outward passage paid from San Francisco. Good salary to a competent man; applicants to state age, and give full particulars as to qualifications, and where experience gained. Applications, together with specimens of unmounted prints of all classes of the applicant's own work, along with photograph of self, to be sent under cover to "Australia," care of E. L. Wilson, Esq., 1125 Chestnut Street, Philadelphia, from whom further particulars may be obtained. Only men whose character will stand the test of inquiry will be dealt with; waste of time for second-rate men to apply.

MANUFACTURERS and furnishers of engines, tools, and materials for the production and industrial use of paper, who would like their articles to be known in Russia, are informed that, from the beginning of 1886, there will be issued an especial Russian newspaper, *Paper and its Use*, devoted to the paper business. Advertising rates, one rouble, or two shillings, for five lines nonpareil, type measure, or the same amount of space with a suitable abatement if repeated. Advertisements are translated gratis. A very large quantity of the first number of the paper will be sent to paper manufacturers, stationers, printers, lithographers, booksellers, photographers, binders, manufacturers of paper hangings, and other industrials, using paper in Russia. Advertisements must be addressed to Aug. Naumann, 42 Kasaukaja, St. Petersburg, Russia.

WATERTOWN, July 13, 1885.

MESSRS. E. & H. T. ANTHONY & Co.

I had always used the ——— plates, but when his factory stopped was obliged to try Stanley's.

I am much pleased with the result. They are the best quick plates for giving fine chemical effect with good density that I have ever used, and the latitude of exposure is so great that I have not had an overexposed plate since I used them; on the other hand, not a single plate was underexposed.

The 8 x 10 Novel Camera and the 8 x 10 Dallmeyer Rapid Rectilinear Lens I recently got from you, give the best of satisfaction.

Yours truly,

C. S. HART.

Send on the plates at once, as I am nearly out of Stanleys.

ALEXANDRIA BAY, Oct. 21, 1885.

MR. E. ANTHONY.

DEAR SIR: I took your advice and started with Stanley plates, and from that time to this I have not used any other, and shall continue to use them until I can find something better.

I could show you a number of letters ordering duplicates, and giving great praise to the brilliancy of the views sent. I shall send you a view of the steamer Maud running full headway, while I was on the steamer St. Lawrence going the opposite way, and also one of the steamer St. Lawrence I made from the land while she was going seventeen miles an hour. I made them with the Prosch Shutter attached to the Platyscope lens.

I must say that Stanley plates have helped me out of many a difficulty this summer.

I might add that the only paper I use for all my work is the new N. P. A. Pensé.

Respectfully,

A. C. MCINTYRE.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

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102 Fulton St., New York.

CARD TO THE PUBLIC.

THE undersigned, referring to the circular from Mr. Edward L. Wilson, published herewith, ask your attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at the above address,

With the most extensive and costly apparatus ever employed in such work, a splendidly accoutred studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

For amateurs we instruct in the art, develop plates, print, and finish.

For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France, and England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

The Centennial Exhibition, 1876, the New

Orleans Exposition, 1884-85, a fine and new series of "The Sunny South," and a large miscellaneous collection of comics, portraits and views.

Foreign and American slides supplied for Mr. Wilson's celebrated *Lantern Journeys*, described in volumes 1, 2, and 3.

Agents for Wilson's *Lantern Journeys*, and other publications.

Stereoscopic and Imperial (8 x 10) views of the above-named subjects promptly supplied.

Soliciting your patronage, and believing we can maintain the world-wide reputation of our predecessor, we are Truly yours,

ROBERTS & FELLOWS,
1125 Chestnut Street.

PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employés, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,
EDWARD L. WILSON.

PHILADELPHIA, Jan. 1, 1886.

FOR SALE.—A well-appointed gallery in one of the principal retail streets of Philadelphia. Price, \$1200. For particulars, address

THOMAS H. McCOLLIN,
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Philadelphia.

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No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

As printer and toner. Can make himself generally useful. Best of reference. Address C. A. McInturff, 106 S. Maine Street, Dayton, O.

As operator or manager. Practical knowledge of all branches. First-class references. Address Grapho, care B. French & Co., Photographic Dealers, Boston, Mass.

As printer and retoucher. Has had two years' experience in one of the best galleries in western New York. Address W. C. Marshall, Palmyra, New York.

As poser or operator in a first-class studio. Conversant with other parts of legitimate photography. Best of references. Address Operator, 514 Congress Street, Portland, Maine.

After January 1st, by George H. Croughton, an artist and photographer of reputation in England (pupil of an English R. A., and holder of two first-class prize medals for painting and crayon work), as manager or artist, or would run a photographic business upon salary and commission with option of purchase, or any other position where his talents as an artist and photographer would be appreciated. He was artist for Messrs. Southwell Bros., Photographers Royal, Baker Street, London, and has worked for most of the best London houses; he was Superintendent of the Centennial Photograph Co., for Mr. E. L. Wilson, at the New Orleans Exposition last winter. Would rent a gallery where there is need of a man who can do high-class work. Address G. H. Croughton, 1125 Chestnut Street, Philadelphia.

As first-class operator after December 12, 1885. Fully understands all branches of photography. Can take full charge of studio if required. Has worked wet and dry plates over

six years. Can be relied on as steady and gentlemanly. Will go to any part of the United States; Washington, D. C., or New York preferred. Address Photographer, care G. Genert, 54 E. Tenth Street, New York.

As printer, toner, or assistant in first-class gallery. Address H. A. Wallace, 131 E. Fifth Street, Cincinnati, O.

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By a young American, who can also speak German, as assistant operator. Understands all branches, especially retouching. Address Winand Bois, Wormersdorf, by Rheinbach, reg. bez. Cöln am Rhein, Germany.

By a young man of six years' experience in a photo-mechanical process. Dry and wet-plate worker; not accustomed to portraiture or silver printing. Address Morris L. Deutsch, 423 E. Sixty-third Street, New York City.

At fair wages, as operator, printer, or retoucher. Address Photographer, care L. Blyn, 120 E. Eighth Street, New York.

In a thoroughly reliable gallery as operator. At present with Gilbert & Bacon. Best of reference as to ability and character. Address Alvin F. Bradley, care Gilbert & Bacon, 40 North Eighth Street, Philadelphia.

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2 " $\frac{1}{2}$,	" . 1 50	2 " 7 x 10, " . 4 00
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EDITED BY
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 Prof. of Applied Chemistry in the School of Mines
 Columbia College, New York City.

E. & H. T. Anthony & Co.,
 591 BROADWAY
 New York.

THE BULLETIN FOR 1886.

That the BULLETIN has proved a success during the past year, our long list of unsolicited testimonials bears ample witness. And we have found it utterly impossible to publish all the good things that have been said of us, owing to the wealth of material always at hand to fill our pages. What is yet more encouraging to us is the large increase in our subscription lists, on which the number of names is now almost double what it was one year ago, and is increasing with every issue of the journal.

We recall with pride the names of some of the contributors to our pages: Prof. C. F. Chandler, Ph.D., Prof. Ogden N. Rood, Dr. A. H. Elliott, Ph.D., Prof. J. M. Eder, Ph.D., Henry J. Newton, E. L. Wilson, Ph.D., L. H. Laudy, Ph.D., Victor Schumann, Prof. Chas. F. Himes, Thos. Bolas, F.C.S., M. Carey Lea, Dr. R. W. Wilcox, F. C. Beach, Dr. John H. Janeway, Prof. Spencer Newberry, A. A. Campbell Swinton, Fred. E. Ives, T. C. Roche, E. K. Hough, G. H. Loomis, J. B. Gardner, W. E. Partridge, P. C. Duchochois, J. F. Ryder, David Cooper, Abraham Bogardus, and a host of others. In addition to the contributions from the above gentlemen, we have given our readers clear and accurate reports of the photographic societies, in many cases from the stenographic notes of our own reporters. Our correspondence column has been a source of pleasure to our editors, and has become an important and unrivaled feature of our publication.

This is what we have done and shall continue to do, with this advantage, that the fund of material upon which we can draw in the future is still larger than that utilized in the past. Among other improvements we intend to illustrate every number of the BULLETIN with a specimen of the best work in both professional and amateur photography. Thus the subscribers will obtain in one year, two dozen gems of the photographic art. Various improvements in the literary part of the journal will also be made. In fact, nothing will be left undone to keep it in the front rank of American Photographic journals.

The improvements we contemplate will involve a large expenditure of money, and as we cannot be expected to furnish so much valuable material at a loss, we shall be compelled to charge three dollars for the illustrated edition of the BULLETIN, and two dollars without the illustrations. Just think of it! Twenty-four illustrations and seven hundred and sixty-eight pages of valuable photographic information for three dollars. There is not another photographic journal in America that does so much for so little. Either the illustrations alone or the literary material alone are worth the price of the subscription, and we give them both, so the subscriber gets twice the worth of his money.

We have laid out a large amount of work for the coming year, and we intend to carry it through. But to do this with energy and pleasure, we must have the encouragement of our readers and subscribers. Help us, and we will help you as much as, not more, than in the past. Our policy will always be, *With charity for all and malice towards none*.

THE PUBLISHERS.

THE PHOTOGRAPHIC TIMES

AND

AMERICAN PHOTOGRAPHER.

ANNOUNCEMENTS

OF THE PHOTOGRAPHIC TIMES FOR 1886.

For the year 1886 we have made arrangements to publish in THE PHOTOGRAPHIC TIMES, articles written expressly for this journal by the following well-known Photographic writers:

Capt. W. De W. ABNEY, of England.
 W. M. ASHMAN, "
 W. K. BURTON, "
 W. E. DEBENHAM, "

ANDREW PRINGLE, of Scotland.
 ARNOLD SPILLER, of England.
 G. WATMOUGH WEBSTER, of England.
 Dr. H. W. VOGEL, of Berlin.

CHARLES SCOLIK, of Vienna.

Mr. H. P. ROBINSON, of Tunbridge Wells, will supply a series of articles on Landscape Photography. Of our American contributors we announce the following names:

Prof. H. D. GARRISON,
 Prof. S. W. BURNHAM,
 GAYTON A. DOUGLASS,
 HENRY L. TOLMAN,
 A. HESLER,
 GUSTAV CRAMER,
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 L. C. LAUDY,
 A. BOGARDUS,
 CHARLES D. FREDERICKS,
 A. MORENO,
 C. W. DEAN,
 Dr. O. G. MASON.

The above is in addition to our regular Editorial staff, and many additions will be made to the list.

Subscriptions: Weekly, \$3.00 per year. Monthly, \$2.00 per year.

There may be some who are not fully aware of the growth of our journal; to such an offer is made of a month's trial (four weeks) for 30 cents.

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

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Also note whether it runs **Uniform**, for some albumenizers mix the first and second qualities, not discarding that which has defects, and thus get their paper cheaper.

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Among our Novelties of recent introduction are

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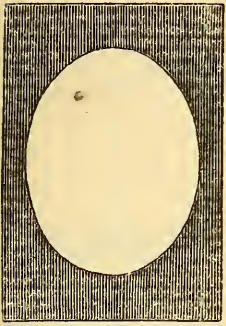
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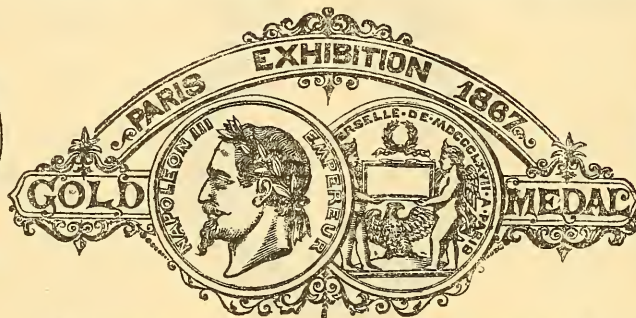
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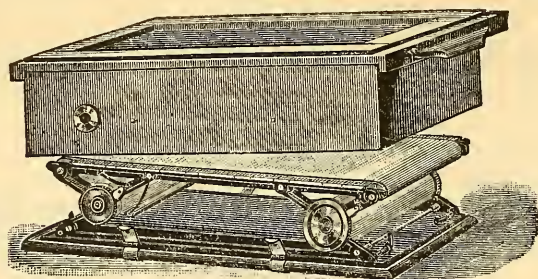
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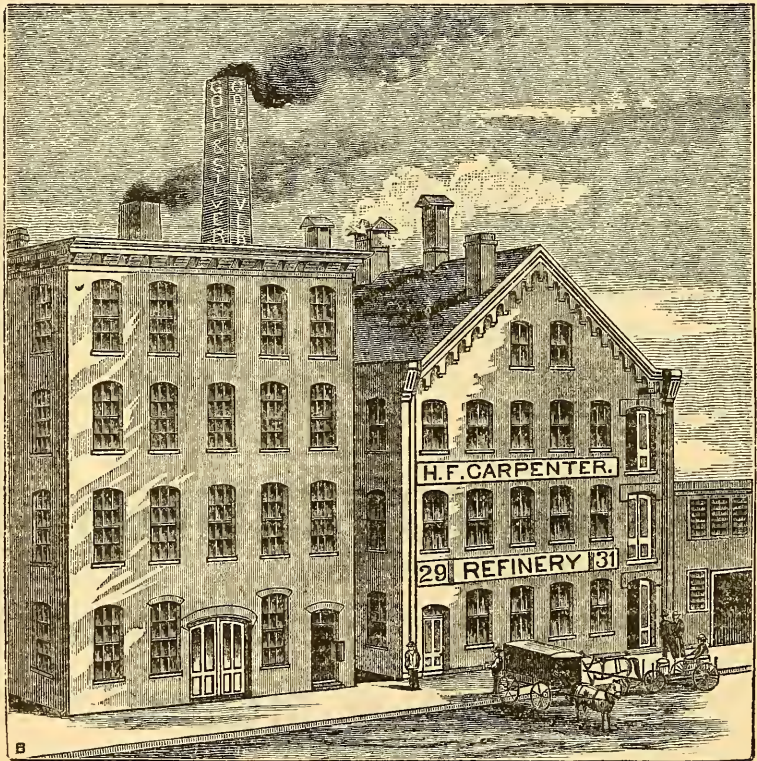
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Views of Horses and Carriages entering Central Park, trotting rapidly across the field of view, sharp and clear cut. These will appear in the Bulletin.

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W. M. ASHMAN ,	ARNOLD SPILLER , of England.
W. K. BURTON ,	G. WATMOUGH WEBSTER , of England.
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The above is in addition to our regular Editorial staff, and many additions will be made to the list.

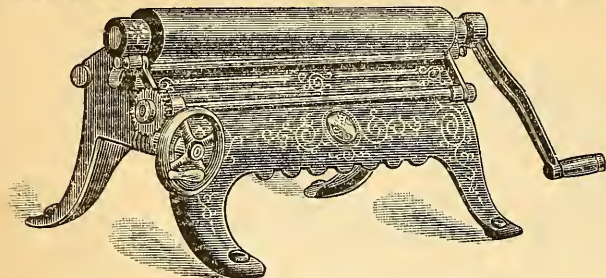
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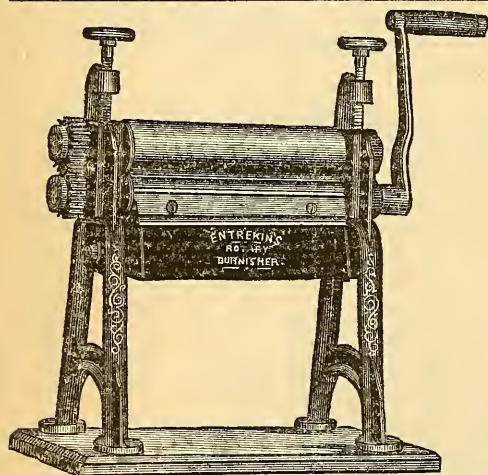
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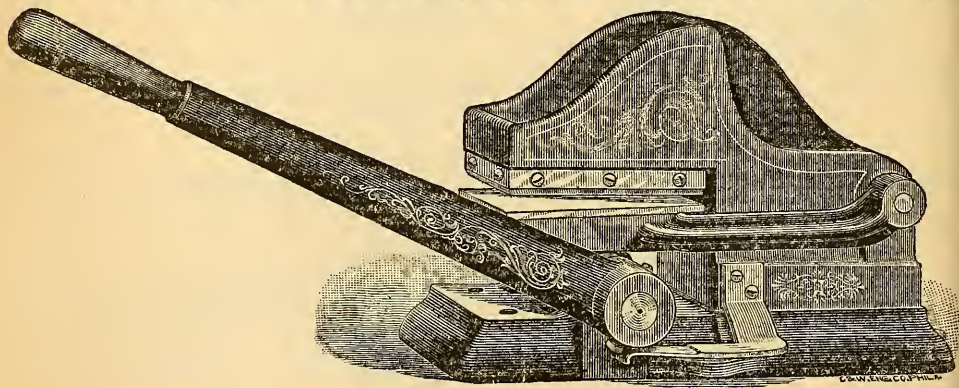
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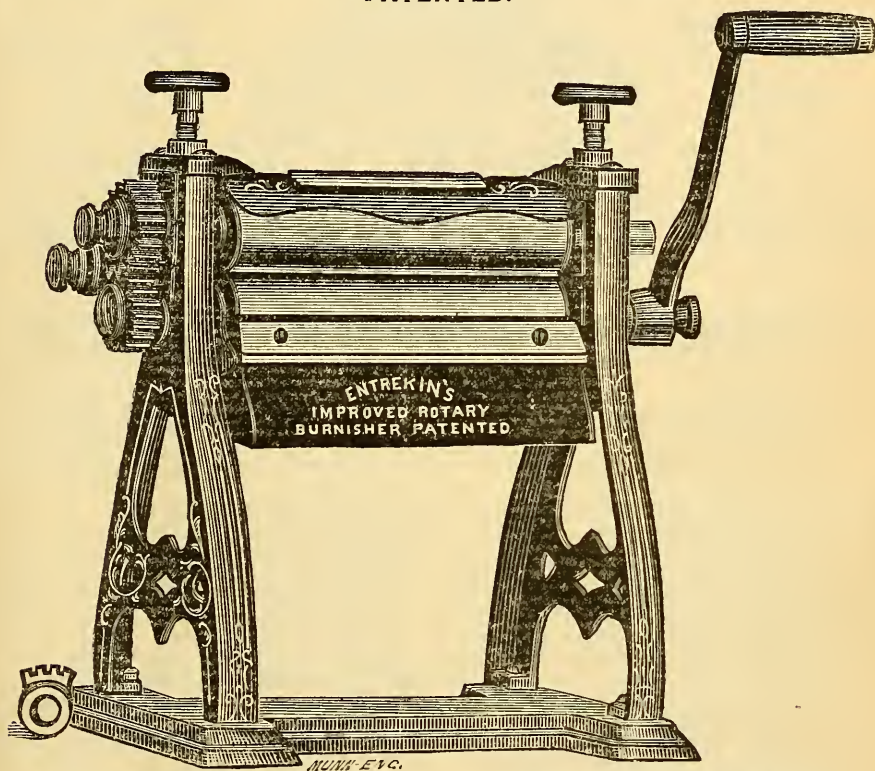
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EDITED BY EDWARD L. WILSON.

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ENLARGED REPRODUCTIONS.*

BY G. HANMER CROUGHTON.

It has often been a matter of surprise to me that amateurs have not turned their attention to this subject, the making enlarged reproductions from small negatives. It is a department of photography which can be done when other work is impossible. In the wintertime and upon dull days enlarged reproductions can be made just as successfully as in brighter weather.

It is a great advantage, if comfort is considered, to be able to carry small plates and apparatus when on an excursion of which you wish to bring back photographic reminiscences, particularly if you can make large reproductions of the best or most interesting subjects.

During the months of June and July last I travelled some six hundred miles among the swamps, bayous, and battlefields of Louisiana and Mississippi. I carried a 4 x 5 camera and fifteen double holders, and I can assure you that I found it toil enough; and my experience at Niagara with one of the lightest 4 x 4 apparatus I have seen and twelve double holders has made me decide never to use a larger apparatus when out for pleasure than 4 x 5.

Apart from the question of weight, there is the item of expense for plates; it is almost

as delicate a question to ask an amateur photographer how many plates he cares to print from a given number of exposures as to ask a lady her age; but it is a fact, nevertheless, that dozens, nay, hundreds of plates get exposed and developed which never reach the printing stage; how much better and cheaper then that there should be 3 x 4 or 4 x 5, instead of 8 x 10 or 10 x 12; and after you get home and have sorted your negatives, and there are any which you think would be worth making larger, then at a time when you cannot get out at landscape work, you can still follow the beloved pursuit in comfort at home.

There are two methods I would recommend for obtaining enlargements from small negatives. The one which is the least trouble is by Eastman's gelatino-bromide paper. The other, which in my hands is most satisfactory, is by the negative process. By the first you can make but one print at a time, each one being made in the camera and developed separately; by the second, when you have your negative, you can print as many as you wish, either upon albumen paper, or platinum, or by any other printing process.

But there is one very great advantage in using Eastman's paper, and that is that any one who has an optical (or magic) lantern can make enlarged prints at night. The small negative has only to be placed in the lantern where the slide is put, and the

* Read before the Photographic Society of Philadelphia, February 3, 1886.

image thrown upon a board, as the slide would be upon a screen, and in a few seconds' exposure with the calcium light an enlargement can be developed full of vigor and detail. Last week I made several 20x24 prints from negatives of about 2 inches with a Ross C. D. V. lens, smallest stop exposure, ranging from 8 to 25 seconds. They can be made with an oil light, but the exposure would be of course so much longer according to the brilliancy of your light.

Any one who has not a lantern, can easily fit up an apparatus which will answer the purpose just as well, with considerably less expense. I made one with a packing box, a condenser, a coal oil lamp, and a few carpenter's tools.

But I think the best results, if you do not want to enlarge to more than 10x12, is by the negative process, which I will now proceed to describe.

The most important part of this method is the transparency from which to make the negative. My experience, which extends over many years, has proved to me that this transparent positive should be the full size you wish the enlargement to be. For instance, I have here a 4x5 negative I wished to make an enlarged reproduction from it 8x10. I put the original negative in the enlarging camera, and enlarged the image upon the ground glass till it filled out the 8-10 plate, and exposed upon a gelatino-bromide dry plate. Now as the resulting negative depends almost entirely for its excellence upon this transparency, I will be a little precise as to the method of development. In the first place, it is all important that it should be fully exposed, the least trace of underexposure being fatal to good results. Next, it should be developed in a very weak solution, and certainly not hurried in development; and the development should be pushed till there are very few points of bare glass, and those only in the highest lights. The developer I used for the transparency I have here, was made up as follows:

No. 1.

Carbonate of potassium . . .	3 ounces.
Water	12 "

No. 2.

Sulphite of soda . . .	4 ounces.
Citric acid	60 grains.
Bromide of ammonium . . .	40 "
Pyrogalllic acid	1 ounce.
Water	12 ounces.

You will see that I have made the alteration in the usual published formulas by putting all the sulphite of soda in the pyro solution, instead of dividing it between the potassium and pyro. My reason is that, believing as I do in Mr. Hoover's theory that the sulphite of soda works best when combined with the pyro in the proportion of 4 to 1, I could not see how that proportion could be maintained if the sulphite is divided between the potassium and pyro, except when normal developer is used—that is, equal parts of each. Now as it is very seldom, indeed, that equal parts of each are used in practice, the proportion of 4 to 1 is upset, either when you use more pyro and bromide in overexposure, or more potassium in underexposure; but, if you put your four ounces of sulphite of soda with your one ounce of pyro in No. 2 solution, the proportion of 4 to 1 is kept up, no matter what quantity you use. Of these two solutions, I use equal parts at the rate of one drachm of each to four ounces of water. If it should act too quickly upon the exposed plate, a few drops of a 60 grain solution of bromide of ammonium is added. If not quite enough, a few drops of the potassium solution and more water are added. It is, as I have said, best to expose fully and develop hourly with plenty of water. When finished, fix in fresh hypo, and, after washing for a few minutes, clear in the following solution:

Alum	1 ounce.
Citric acid	1 "
Sulphate of iron	3 ounces.
Water	20 "

Let it stay in this from thirty seconds to two minutes, till all yellow color is gone; wash well in running water for at least one hour.

When dry the transparency can be, if needful (and you have no prejudice against it), touched upon with a black-lead pencil. I know there are many who think it is not legitimate to retouch, as it is called, either

upon transparency or negative, but for myself I hold that, so long as the result is true, naturally and artistically, any means used to produce that result are legitimate. If the shadow upon a tree trunk would be the better for deepening, or a white sail comes out on the negative the same tint as the sky, then I say that a few touches of the pencil upon the tree trunk in the transparency or upon the sail in the negative are not only allowable but to be commended.

Having got the transparency the size you wish your enlarged reproductions to be, you must make your negative by contact. The first objection to that will be that you cannot get actual contact, the glass upon which the average dry plate is made being anything but flat. If the exposure is made in diffused light, that objection would be fatal, the loss of sharpness being very considerable where contact has not taken place. But my method is this: I put the transparency into the holder face inwards, then place a dry plate upon it, film side, of course, against the film side of the transparency, adjusting the camera with the lens pointing towards a window, and put between the window and the lens a sheet of ground glass, pull out the bellows to the fullest extent, and put in the holder with the transparency and sensitive plate. You have now through your lens direct rays of light of more or less intensity, according to the stop used, and can, in this way, time your exposure to a nicety; and although your plates may not be in actual contact over three-fourths of their surface, there will be no loss of sharpness; to try this, I have separated the two plates with pieces of thick card, and still no loss of sharpness; in fact, before dry plates were used, I had made hundreds of wet-plate negatives in this way from transparencies where the two plates were separated by corner pieces of stout silver wire.

The directions given for developing the transparency must be followed in developing the negative from it, being always careful to avoid underexposing, and as the proof of the pudding is in the eating, I have the pleasure of submitting specimens of both negatives and transparencies, with print from enlarged negative, and I think you will agree with

me that the 8 x 10 of the landscape would easily pass muster as a print from a direct negative.

GERMAN CORRESPONDENCE.

Photographic Mistakes—Photography by Gaslight with Azaline Plates—Staining Plates by Bathing in Dye Solutions—Reducing the Strength of Gelatine Plates after Eder—Answer to Mr. Ives.

PHOTOGRAPHERS are not savants, and have no desire to pass as such; but the truth is, mere practical knowledge is not always sufficient, and through lack of scientific knowledge gross errors may occur. Every photographer knows that paper prints before toning are washed to eliminate the free nitrate of silver. This washing is called in Germany, I know not for what reason, chlorodizing. Now there are certain photographers who imagine that in the washing of the print they should add chlorine to the water. Lately I received a letter from an inland photographer who complained that the river water in his neighborhood was free from chlorine, and that he was obliged to dig a well at considerable expense to get the chlorine water. The water became milky when the prints were put in it. I wrote him he had better return to his river water. Another photographer who had water likewise free from chlorine, thought he should add common salt to remedy the defect. The result was, all his prints turned foxy red in the toning bath. Such stupid proceedings frequently occur.

Little judgment is shown in the practice of the newly introduced isochromatic processes which depend upon the principles first discovered by myself.

When two years ago I first published my color-sensitive collodion process, I read in a well-known journal, that eosin did not increase the sensitiveness for yellow, but merely restrained the action of the blue until the yellow had acted. How erroneous such a statement is may be seen, when I can demonstrate that with an ordinary collodion plate it requires sixty seconds' exposure to obtain the action of the pure yellow; whilst with an eosin plate an action of the yellow is effected in one second. It

follows, therefore, that the action of the eosin for yellow is sixty times that of an ordinary plate. To be sure, this experiment must be made with the spectroscope, for it is only with this apparatus that the pure color can be obtained. What is generally called yellow, is only in reality part yellow. It contains, besides pure yellow, light red-green, and even a portion of blue—the latter often in such amount as to affect the photographic action, the ordinary photograph representing such yellows not dark but light—as, for instance, Naples yellow. Every photographer or amateur may convince himself by a simple experiment that even paint colors exercise a high degree of sensitiveness toward color-sensitive plates. Take an ordinary plate and a color-sensitive azaline plate of the same make, expose both in the same apparatus behind the same yellow disk, and for the same time upon a colored object, for instance, the color scale in my handbook. Then develop both. The ordinary plate shows, notwithstanding the interposition of the yellow disk, a very strong action of the blue, the yellow and red none at all. But with the azaline plate it is otherwise; here yellow and red are strong, and the blue only moderate. I have long ago settled by experiment that ordinary plates are more sensitive by daylight than azaline plates; but it is otherwise behind yellow glass. This proves that under yellow light azaline plates are more sensitive than ordinary plates. This view I found confirmed in experimenting with gaslight. I was surprised myself to obtain an impression of my color scale from my handbook, in fifteen seconds, with azaline plates by gaslight, and it even showed overexposure, although I only used two flames of about thirty-six candle power. I thereupon made further experiments with stronger flames. Siemen's regenerative burner, of 120 candle power, was the strongest light at my disposal. By it I took a chromolithograph requiring only double the time by daylight. The great advantage of gaslight is that it is isochromatic—that is to say, the yellow is taken light, the blue dark, and without the use of the yellow glass. Now, much stronger flames are within reach. Siemen has lamps of 300

to 500 power. It is evident that we can operate three to five times as quick as before: probably we shall soon be able to take isochromatic portraits by gaslight.

Lately endeavors have been made to increase the sensitiveness of isochromatic plates. The fact is, plates which have been dipped in dyestuff solution are more sensitive than when the same dye is incorporated with the emulsion. Unfortunately the dipped plates show strong fog. I recently heard discussed a wonderful kind of new stained plates which are to eclipse all others in sensitiveness. These plates are made by Schumann, with bromide of silver dipped in a cyanine bath. The plates are first put for two minutes in a solution of 200 c.c. water, and $\frac{1}{2}$ –4 c.c. ammonia, then in a solution of 200 parts water, 2 c.c. ammonia, 10 c.c. alcohol, and 5 c.c. alcoholic solution of cyanine (1:500) and quickly dried on blotting paper.

Concerning the sensitiveness of the plates, the *Wochenblatt* enthusiastically expresses itself. Schumann used keosmos burners (petroleum), and gave an exposure on an oil painting, with Steinheil aplanatic full opening ten minutes. The *Wochenblatt* adds: "Such an exposure with the orthochromatic plates hitherto made would have been the greatest folly." Now I have been guilty of this folly, for, as already mentioned, and indeed earlier than 1884, I have taken by lamp-light with azaline plates my color scale in fifteen seconds, and the same showed itself even overexposed. Therefore azaline plates are twenty times more sensitive than the new plates of Schumann. The Schumann plates exhibit just as much fog as any of the bath-stained plates. Moreover, they don't keep; after twenty-four hours there is nothing but fog on the plates, not a trace of a picture.

Dr. Eder has recently published some valuable notices concerning the reduction of too strongly developed plates with chloride of iron and oxalate of potassa. Dr. Eder employs the mixture as follows:

- A. 1 part chloride of iron, diss. in 8 parts water.
- B. 2 " neut. oxalate potassa in 8 " "

Both solutions keep a long time without deteriorating. Immediately before using

equal parts of A and B are mixed, forming a bright green solution, which keeps well for several days in the dark, but decomposes in one day in the light. Of this mixture a little is added to a fresh and strong solution of hypo. In difficult cases 1 part hypo and $\frac{1}{4}$ to $\frac{1}{2}$ of iron solution are employed. The plate to be reduced is placed in this solution. The image weakens quickly and uniformly. The plate is taken out and washed just before the desired reduction is reached, because the action continues during the washing, gradually diminishing under the stream from the tap. This reducer acts on plates developed either with pyro or oxalate, and does not destroy the details in the shadows, like cyanide. There is also less tendency to frill than with the cyanide bath. The reducing process of Mr. Lenhad for weakening certain portions of the negative is most excellent. A pad of linen is dipped in alcohol, and rubbed over the dry film until the dark parts brighten up. This is effected without any loss of detail, and without the slightest injury to the film. The finer parts may be rubbed with a flexible piece of wood dipped in alcohol. I saw, at the establishment of the Court photographer, Herr Burger, difficult retouching effected in this manner.

I see, from page 364 of your valuable journal, that Mr. Ives over and over again deludes your readers with wrong statements about my publications and my observations on isochromatic photography. I declare in opposition to all that, that I only acknowledge what I have written in German, and not what has been translated. I have explained this matter sufficiently in my correspondence in your November number of 1885, page 364.

DR. H. W. VOGEL.

BERLIN.

THE PHOTOGRAPHY OF THE FUTURE.

It would be untruthful to say that the outlook for photography is particularly cheerful at present. Neither can it be claimed that there has been much advancement since the last issue of *Mosaics*.

Growth there *always* is. Photography is

bound to grow until the millenium. But each year more photographs will be needed to make a dollar, than were expected for that sum the year before, and we might all of us just as well make up our minds to it. Battling against "low prices" is equivalent to the antique "kicking against the pricks." "Cheap Johns" are no more. There are too many of our craft compelled now to produce good work at very low prices, to apply that opprobrious term to them. It cannot be helped, for the present at least, and we must make the best of it.

And what are we to do to make the best of it, fellow sufferers? Simply increase your business. Push it upon business principles and boom it up.

If there are not enough people about you to require as many photographs as you need to produce to secure a living, then resort to something else to help you out. *Induce trade*. Anybody can make what is offered, but business tact and push must be exercised in order to *bring* business. The outlook is hopeful for those who push. Special styles can be introduced. Large sizes can be pushed. More uses for photographs may be discovered.

Then you can resort to the varied processes for reproducing and rapidly multiplying pictures.

Such houses as the Photogravure Co. and the Levytype Co. offer help to an immense outgo for negative pictures for industrial, commercial, and advertising uses. Indeed, there is no end to the business that can be done with them.

It may cost a pang in the beginning, but be assured, gentlemen and ladies, it is coming to it. The dear public has been taught, alas! too thoroughly that photographs may be made for a small price, and they won't let the idea go.

We do not advocate *all* reducing prices. We only urge where necessity requires help. Think it well over: think over it candidly, and act manfully and even heroically. *Think!* Shaftesbury once said: "'Tis the hardest thing in the world to be a good thinker, without being a good self-examiner." If you sit down, then, for a candid examination into the falling off of your business, you will soon begin to think how

to correct it. Never be satisfied with standing still.

"All my life long
I have beheld with most respect the man
Who knew himself and knew the ways before
him,
And from amongst them chose considerably,
With a clear foresight, not a blind courage;
And, having chosen, with a steadfast mind
Pursued his purposes."

The above views from our *Mosaics*, 1886, reader, are not to be considered as pessimistic or as indicating that we back down one iota from our advocacy of good prices. They are only to be considered as "common sense" views growing out of things as they are in some localities, and to show our wearied patrons how to help themselves.

Prof. C. Piazza Smyth's letter in our Correspondence shows how the live photographer in England manages, and the splendid photogravure print which embellished our last issue proves what splendid opportunities are at hand for following our suggestions.

In all things keep cheerful. Take best advantage of what there is and you will have success.

A MARVELLOUS ACCOMPLISHMENT.

Some months ago, I wrote you of my preliminary experiments at the Grand Opera House, in this city, in taking views during the performance of the spectacular play of "Undine," and promised to give full details of future experiments. It is certainly time I kept that promise.

Upon my first experiment the negatives were underexposed, as the plates received but nine and eleven seconds exposure.

I invited Dr. Passavant and Messrs. Lowden and Gibbs to take part in the second experiment.

The management of the theatre placed four mezzanine boxes at my disposal, which gave each of us a box to work in.

Two scenes were taken—a ballet tableau and the transformation scene. The transformation scene made by far the best negative, and I therefore enclose that one for your inspection.

The stage was lighted by four powerful calcium lights, in addition to the regular gas jets. No colored fire was burnt at the wings.

We all used Passavant C. I. P. plates and whole plate cameras. Dr. Passavant used a Steinheil lens, Mr. Gibbs a Ross, Mr. Lowden a No. 4 Darlot, while I used a No. 3 Eury-scope. In all cases the lenses were used wide open, or with the largest stop.

The curtain was held for us, and the actors notified of what was to take place.

Our exposures ranged from fifteen to thirty-two seconds, but only the longer exposures were at all satisfactory.

I have not at hand any details of the rest of the party's method of development, and shall have to confine myself to my own work.

It was considerably after eleven o'clock when the last negative was taken, and, as I have the fortune, or misfortune, to live across the bay, in Alameda, it was nearly one o'clock when I reached my dark-room. I was sleepy and wanted to go to bed, but the temptation to see what I had secured was too great to be resisted, and I therefore lit my dark-room lamp and went to work.

My developer was pyro and potash (a modified Beach developer), and very weak; in fact, I rarely use less than three times the amount of water called for by most of the formulæ. Instead of using two or three grains of pyro to the ounce of water, I never use more than one, and other chemicals in proportion. In this instance, fearing under-exposure, I first soaked my plates in the potash and soda solution, and then added the pyro.

The plates developed very slowly, but with considerable detail. They remained in the developer thirty-four minutes. After clearing, and putting in the washing water, my best negative commenced to frill, and before I could do anything it had nearly come off the glass. This was due to my carelessness in not putting the plates in alum before fixing.

It is no trick, however, to save such a negative, if one knows how to go about it. My method was as follows: I first put the plate in a tray of lukewarm water, and gently stripped it from the glass. I then

carefully washed the film in several changes of water. Next, I slipped a piece of clean 8 x 10 glass under the film, and, gradually raising one of the sides of the glass above the water, allowed the film to stretch out and lie smoothly upon the glass. A little care and manipulation, and my new negative was better than the old, and for this reason: the negative was originally a little too dense in the high lights, but after being stretched upon a larger glass, it was of good printing density.

Of course, pictures taken under the circumstances can never be really artistic, and are of more interest as experiments than anything else.

It is needless to say, that it was nearly daylight before I got to bed.

W. B. TYLER.

SAN FRANCISCO, Dec. 23, 1885.

[The photograph sent us by Mr. Tyler is the most remarkable one of the kind we have yet seen, and we doubt if anyone has excelled it.

Various members of the *corps du ballet* are seen posed upon one foot, engaged in the maze of the dance, involved in the strangest posturings, and apparently flying across the stage in the wildest activity.

And the details of the figures, with the accessories of the stage, are most wondrous.

And yet, no wonder, when our enthusiastic friend tells us how patient and persistent he was in his efforts to secure what he *knew* to be latent in his film.

Such enthusiasm is what we all want, to make photography accomplish marvels. Surely, Mr. Tyler is to be congratulated.—
ED. P. P.]

PRACTICAL POINTS FROM THE STUDIOS.

MULTIPLYING CAMERA FOR DIFFERENT SIZED PLATES.

At the French Photographic Society, M. Léon Vidal presented a camera of the size 7x9½

whilst all the other negatives which surround it are of very small size, making, as it were, a frame composed either of portraits, attributes, or views of various kinds.

These different negatives may be either square, rectangular, round, oval—in a word of any shape that may be desired.

To attain this end, Mr. Picq has simply arranged in the portion of the camera which receives the negative-holder, four movable screens or curtains allowing free access of the luminous rays to the whole of the plate when they are closed and uncovering such part of the plate as may be desired, according as they are more or less drawn to the outside. Millimetric divisions are engraved alongside of the grooves which serve to guide these curtains, enabling them to be placed symmetrically in the same position to the right, to the left, up and down, and, moreover, the holder is placed in a grooved frame, graduated on the outside so as to make it possible to bring the plate in the position that it is to occupy in such a manner that the portion of this plate which is to be impressed is exactly opposite the opening obtained by means of the curtains. We think that this is a novel idea and destined to render great service to photographers, who upon a single plate will be able to make successively a collection of portraits, or of reproductions of different sizes.

We advise those who may have recourse to this instrument to use a slow stop, so as to obtain the same length of exposure for each subject if, be it understood, the other conditions—light, focal distance, etc.—be equal. Without this precaution there is the risk of finding in the developing so much difference between the negatives, that the result would be very incomplete. It is true that it is possible to restrain those portions that are sufficiently developed, so as to insist upon the others, but these are practices that should be only used when necessary, and it is preferable to operate so as to obtain a regular development on the entire surface of the mosaic.

Four different shutters were presented, but which require some improvement to make them practical. M. Léon Vidal made the

remark, that too much attention is paid by the makers of these instruments to giving them great rapidity. They forget that they also should be made to be used with a slow movement. The ideal stop should have a rapid or slow movement according to the necessity of the operation.

FERROUS OXALATE DEVELOPER IN CONCENTRATED SOLUTION.

By following the indications given by Dr. Eder we have made the following concentrated solution:

Boiling water . . .	500 grammes.
Neutral oxalate of potash . . .	300 "

This solution made, and to the same liquid at 95° Centigrade (203° F.) we have added

Sulphate of iron . . .	100 grammes,
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when all was dissolved we filtered this liquid into well-stoppered bottles. In use this is what we observed: An exposed plate plunged into this developer gives but faint traces of the image to be developed, but the intensity increases when water is added to the concentrated liquid. By adding an equal volume of water and even double the volume of the solution, we have obtained very complete development. When developing plates that have had a normal exposure, we can at once use three times the volume of the concentrated solution. If, on the contrary, overexposure is feared the water should be added gradually. A prolonged stay in the concentrated solution retards the coming of the image, instead of rendering it more intense. A plate immersed in water, before being treated with the concentrated developer, does not develop any better in it, unless at least the proportion of the additional water be increased twofold. To resume, this concentrated solution offers the advantage of reducing to a *minimum* a solution of ferrous oxalate ready for use; by the addition of more or less ordinary water, it is possible better to conduct the development of overexposed negatives. — LEON VIDAL, *Paris Moniteur*.

MESSRS. MARCHANT & Co. presented a camera 13x18 centimetres (5x7 inches) with a revolving cone, which offers some improvements worthy of interest. The box

contains twelve plates fixed in pairs in small brass frames, so that the holder is furnished at once with the two plates that it is to contain. This box is not grooved; the plates come out of an opening on the right, for example, and, after exposure, they are returned to the box by a parallel opening on the left. So that when the twelve plates have been used they occupy in the box exactly the same place as before. This same system applied to their particular plates, free pellicles or emulsion papers would also allow twice or even three times as many sensitive films in the same box.

Another improvement is the possibility of bringing at all times in the axis of the lens the portion of the plate not covered by the multiplying screen placed in the groove of the camera in front of the ground-glass plate. According to the screen used (plates of blackened zinc) it is possible on the same plate to make half size, quarter size, third size, sixth size, which in many cases may prove very useful.—*Paris Moniteur*.

SCHUMANN'S ORTHOCHROMATIC PROCESS.

Bromide of silver gelatine plates, free from all iodide of silver, are dipped for two minutes in a mixture of $\frac{1}{2}$ to 4 c.cm. of ammonia in 200 c.cm. of water, and then for another two minutes in the following:

a.—Distilled water . . .	200 c.cm.
Strong ammonia . . .	2 "
Absolute alcohol . . .	10 "
Cyanide solution . . .	5 "
(1 gr. cyanide to 500 c.cm. alcohol.)	

b.—Distilled water . . .	200 c.cm.
Ammonia . . .	4 "
Alcohol . . .	10 "
Cyanide solution . . .	10 "

The plates are to be prepared shortly before using them, as the effect diminishes with keeping. The development must be slow, with additions of 1-4 drops of bromide of potassium to 60 c.cm. of developer, or fog will be raised.—*Wochenblatt*.

hydrogen have been replaced by the bromine and the chlorine.—DR. PHIPSON'S *Correspondence in the Paris Moniteur.*

USE GOOD CARDBOARD ONLY.

THE *British Journal*, of December 11th, has a very timely leader on "An unsuspected Source of Fading," which should not be overlooked. It gives us nothing particularly new, but warns photographers that the demand for "cheap" cards has induced some manufacturers to use materials for their "insides" of cardstock that are impure chemically, and cause the photographs mounted upon them to turn color villainously.

The article alluded to dwells upon the well-known plan of papermakers of using hypo to eradicate the traces of chlorine which may remain in the pulp; of particles of bronze which are imbedded in the cards while their edges are being finished or the back designs printed; of partly decomposed paste; and of, finally, "strawboard insides" and wood-pulp middles." This last cause seems to be the one most annoying to the British public at present, and the reason is, that the cry for "cheap" has compelled the cardboard makers who don't care, to answer it by supplying the "nasty."

We regret that it is so in this country also, and here record a caution. But, because treacherous cardboard exists, that does not render it necessary that it should be used.

There is plenty to be had that is all right.

A few days ago, with the *British Journal* article in hand, we had an interview with Mr. Edward Cope, of the firm of A. M. Collins, Son & Co., that we might get the best information on the subject. He assured us that no hypo was used to eradicate the chlorine in the paper used at their factory—that only pure water, even at a loss of pulp, was employed for such purpose; that only bad, "cheap" bronze would cause trouble from metallic spots; and that good cardboard makers and printers used only the best, and for bevelled edges, pure leaf-gold.

That the straw and wood mould-producing insides were employed by "cheap" card-

TO WHITEN IVORY.

Ivory may be whitened by exposing it to the sunlight for a space of time varying from one to six months. But if it is previously covered with a thin coating of turpentine, it can be made white in from three to five days.

A USEFUL SALT.

Camphic acid, or rather camphate of silver, is a compound which may, some day, possess some considerable photographic interest, on account of its great sensitiveness to the action of solar light. Camphic acid is obtained by the action of soda on bromized camphor, or on chlorobromized camphor, or by the action of alcoholic potash on camphor. The camphates of soda, of potash, of baryta, etc., are soluble in water, and precipitate the salts of iron, copper, lead, zinc, and silver. The camphic acid arising from the addition of an acid to one of its soluble salts, forms oily drops, which unite when the liquid is agitated, and fall to the bottom of the water; its silver salt contains 89½ per cent. of this metal, and blackens in the light with very great rapidity. It would be interesting to study in this connection the compounds of silver formed by bromized and chloro-bromized camphors. We know that these last are camphor in which some proportions of

* From our experiments it results that a negative placed in the concentrated developer, acquired less intensity than a similar negative developed in a developer diluted with water.—LEON VIDAL, in the *Paris Moniteur.*

board makers, and it was a necessity if photographers demanded such. The thing is in your own hands, good photographers.

We have tried to protect you by warning you, and over and over again have refused to advertise the spurious article.

PHOTO-ELECTRIC ILLUSTRATED NEWSPAPERS.

FELLOW photographers, when you take up your daily and weekly illustrated paper, do you realize that without our art they could not be? This is how it is done:

American pictorial journalism has, within thirty-five years, reached the acme of excellence. Were Fred Gleason, its pioneer, now living what would he think? Henry Carter has been dead scarcely six years. He often spoke of possibilities, but never imagined that A.D. 1885 would develop creations of the "hour," rivalling Frank Leslie's "weekly" publications. The crayon signatures "V. G." "J. A. W.," and "McD." on hundreds of daily vignettes show what art can do when it is required to join hands and keep pace with the stenographic news-gatherer. "I was chatting with McDougall, of the *World*, on Thursday, November 19th," says a special correspondent, writing from New York. "News was brought in of the falling of a building in Bethune Street. McDougall and his assistant, Folsom, sprang to their feet, and donning their rubber coats, for it was raining hard, and giving me an invitation to accompany them, started for the scene of the accident. It was then five o'clock, and the pictures were to be in the paper the next morning. I expressed some doubt in regard to their appearance, but McDougall's confident smile assured me that it was a certainty. Arriving at the entrance to the street, we passed the 'fire lines,' and saw the ruins of a large building, whose walls had fallen into the street, killing a woman and injuring several men. It was already dark, and the fitful light of a street lamp showed the dark outlines of the remaining walls looming up against a cloudy sky. The black figures of some firemen were seen on the roof of an adjoining house. Almost by feeling, McDougall sketched the scene with a blue pencil, while Folsom

was growing darker.

McDougall had taken in the entire scene, showing the street in perspective, with a great heap of bricks and timber lying across it. At 7:45 the first double column sketch was finished. The drawing was made about ten inches wide, and with an amount of detail and shading that surprised me. This was despatched to the photo-engraver, and he then made a sketch of a horse and its driver escaping from the falling walls, which was followed by the drawing of firemen searching for bodies in the débris. These were all drawn with India ink on Bristol board. Mr. Folsom had completed the sketch of the building before the fall, the plan of the buildings, and removing the bodies to the hospital. All but the first sketch were for single column cuts, and all were sent to the engravers by 9 o'clock, when we went to a neighboring restaurant and had a quiet little dinner, during which McDougall explained the process of zinc etching by which the cuts are made. A photograph is taken from the ink drawing upon zinc, and the spaces between the lines etched deeply with acid. This process occupies two hours at least, and after being looked over by an engraver, the block is sent to the pressroom, a perfect *fac simile* of the original sketch. It is then stereotyped with the rest of the type in the page, bent in the form of a half circle and goes into the press, from which the paper emerges at, say 2 o'clock, with the result of the night's work in the shape of six accurate pictures."

Wilson's *Photographics* is the most comprehensive text book now in existence.

THE OPEN CORNER.

WHAT are "the works of the old masters?" is becoming an open question. Here is an example.

The Duke d'Anmale has just purchased, for the sum of 625,000 francs, one of Raphael's most celebrated paintings, the *Three Graces*, which formerly belonged to the gallery of Lord Dudley, of London.

Raphael probably painted this picture in 1506, when he came to Sienna to make the drawings used by Pinturichio for the frescoes for the Libreria of the Cathedral, representing the episodes of the life of Encos Sylvius Piccolomini, great uncle of Pope Pius III. In the centre of the Libreria there existed an antique group of the *Three Graces*, discovered in the foundations of the dome, and which had been placed upon a marble candelabrum. This piece of sculpture was transferred a few years ago to the Academy of Fine Arts, at Sienna. The sketch made by Raphael from this composition, which had charmed him, is to-day to be found in the Academy of Fine Arts at Venice. The picture that he painted from this souvenir belongs to the second period of the artistic life of the master.

The picture of the *Three Graces* formed a part of the Borghese collection at Rome up to the time of the Revolution. It was afterwards purchased by the painter Thomas Lawrence, and, at his death, went into the gallery of Lord Dudley, recently deceased.

BOOKS.

The German Photographic Calendar, edited by K. Schwier, and published at Weimer by the Deutsche Photo. Zeitung, contains a collection of recipes, formulæ, and tables which cannot fail of being of the greatest practical value, inasmuch as they are the result of the most recent discoveries in the science. The review of the progress of photography for the past year is a well-written and concise epitome of all that has been accomplished, special attention being given to the valuable discoveries in isochromatic photography. The little photo. almanac is embellished with an artistic portrait of an old man, a most superbly illuminated head, the work of the renowned Fritz Eilen-der, of Cologne.

A Handbook of Chemigraphie and Photo-chemigraphie, published by Ed. Liesegang, in Dusseldorf, explains the recent discoveries of J. O. Morch, in permanent printing processes for book illustration.

The application of photography to illustration is still young in years, but it has made most wonderful progress and we have every anticipation of a grand future in store for it. The valuable experiments of the author of this work will contribute much to this end.

His thoughts are conveyed in a clear, practical manner, bearing evidence of a thorough knowledge of the detail of the various methods employed.

The work is illustrated with a number of plates of the different processes.

MR. A. FISCH has just published at the Central Library of Sciences an interesting collection of processes styled, *Photocopy, or Processes for the Industrial Reproduction by Light, in a rapid and economical manner, of drawings, plans, maps, engravings, sketches, writings, and of all tracings whatsoever of engineers, chief foremen, builders, architects, designers, etc.*

This little treatise—very clear, very complete—gives the manner of obtaining the above-mentioned reproductions in dark blue lines upon a white ground, in white lines on a blue ground, and in black lines on a white ground; and, moreover, it gives the necessary information to prepare the different kinds of sensitive papers. There is no doubt of the success of this useful work, especially at the present time, when the ferro-prussiate and cyanifer processes are so general.—*Paris Moniteur.*

THE Paris Syndical Chamber of Photography met recently. In reply to a question made by the Minister of Commerce in regard to the great exhibition to be held in 1889, the Chamber expressed the wish that this exhibition should be *at Paris*, and that it should be *International*.

It is very evident that a universal exhibition would have more *éclat* than one of a purely national character; however interesting might be the bringing together of all the products of the country. These productions are well known to us, whilst there

is always something to gain in becoming acquainted with the progress obtained outside of us.

Besides, the concourse of strangers coming to visit at Paris a universal exhibition, will always be more important than in the case of a national exhibition; our transportation companies and our dealers will derive greater profit, and in what concerns especially the photographic industry, there is no doubt that it will have much more to gain with an international exhibition. These are the motives which have determined the Syndical Chamber to arrive at the above decision.—*Paris Moniteur*.

GREAT interest has been aroused, at the meeting of the National Academy in Albany, by Professor E. S. Pickering's paper on "Stellar Photography." Such astounding sensitiveness has now been reached in photograph plates that stars giving the one-hundred-thousandth part of the light required in the first star photographs give an image, and the end is not yet. There is still room for indefinite increase in sensibility. Already stars of the fourteenth magnitude are photographed, and the dry gelatine plate has even taken the impression of stars so minute as to lie beyond the ken of the most powerful telescope yet constructed. Thus there is in the camera and gelatine plate an instrument keener and more accurate than the human retina, aided by all the resources of art and science. The first observations on stellar photography were at Harvard in 1850. Stars of the first magnitude only could then be taken by exposing a daguerrotype plate kept in the focus of a telescope for a long time. No photograph of the pole star nor the circumpolar regions could be taken at all. Seven years later the experiments were renewed by George P. Bond, with success. Within a few years good work has been done in stellar photography at Paris and Cape of Good Hope. Professor Pickering's experiments were conducted with money furnished from the Bache fund by the National Academy a year ago. The apparatus used enabled him to follow stars in equatorial as well as in polar regions, and whatever part of the heavens the star is situated. It gives a picture of a small circle,

all the circles being of the same size. This gives almost a new tool in astronomy, and enables science to solve various problems. One is that of atmospheric absorption. By comparing pictures taken at intervals of six months, and by taking a series of lines left on the sensitive plate by the stars at different altitudes, there is found a way of comparing the brightness of stars, although the camera does not in all cases give the same relative brightness as the eye, because of the greater actinic effect of the blue rays, so that a red star of the second magnitude gives no larger image than a blue star of the sixth. The camera used by Professor Pickering covers ten degrees, and gives trustworthy impressions up to five degrees, whereas that used in Paris gives only two degrees or three degrees, for the reason that, although the Parisians use a larger lens than in this country, it is a single lens and not a chromatic. In applying the instrument to maps of the sky fifteen hundred plates of the American system, therefore, would suffice for the whole heavens, instead of six thousand as by the Paris system. Probably no one can make by eye a better map than Dr. Peters. The photograph seems to be peculiarly sensitive to atmospheric change, and hence improves at higher altitudes. Mountain observatories at great height should be available for photography. The photographing of stellar spectra has heretofore been difficult, and only possible with stars down to the second magnitude. Results heretofore requiring the use of clockwork and lens one foot in diameter, with an hour's exposure, are now attainable without clockwork, with two and a half-inch lens, and two or three minutes' exposure. In fact, in using a lens of fifteen degrees angle, even without clockwork, the plate was overexposed, and the spectrum fairly burned into it.

OUR old correspondent, M. Leon Vidal, has issued through his publisher, M. Gauthier-Villars, the second part of his *Manuel du Touriste Photographe*. It is an excellent book, well worthy the study of both the amateur and the photographer for bread.

AT a late meeting of the Newcastle-on-Tyne Photographic Association Mr. Henry

G. Templeton read an excellent paper on "The Advantages of Technical Education in Photography." He reviewed the growth of art and science, which is "largely due to the means provided for obtaining technical information," and deplored the carelessness apparent in the work of many photographers. He further says:

"Photography may be said to be made up of mysteries, from the preparation of the plate to the finished picture, and it is to the unravelling of these mysteries that we must apply technical education. Yet how often do we find our younger brethren who, may be, have just commenced their course, content if they can take a good negative, and from it print a satisfactory picture—and this especially among amateurs—never for a moment considering the why and wherefore of the steps they are taking, or how it is that certain processes bring about certain results, or stopping to consider how that wonderful and mysterious latent image has been formed on the sensitive plate. How different is the case with the man, be he amateur or professional, who having carefully studied his subject, can confidently look forward to obtaining a certain result to his labors, not because somebody else told him it would be the case, but because he knows the *rationale* of what he is doing, and is not groping in the dark. This brings me to the question 'What is the best way to obtain the necessary technical and theoretical knowledge which we now know to be so valuable?'

"No doubt one great help will be careful reading and study of the good works on the subject, but where the student is left to himself he is very apt to fall into a habit of desultory reading, swallowing much but digesting little. A safeguard against this is found in the classes for instruction in photography which have been established in some towns, where the student will have the advantage of an abler mind to guide him, and keep him from straying into bye-paths. Where such classes are not accessible, I would suggest that as many as are interested in the study should meet together to read up and discuss the subject, and test their work by trying to solve the difficult

problems which may, from time to time, be brought before them."

A determination to elevate the dignity and increase the usefulness of photography seems to have seized nearly all our editorial coworkers, over which we say, Let the good work go on.

THE FRENCH ASSOCIATION OF PHOTOGRAPHY.

We should feel a veritable interest in following the work of this Association; but, in truth, it becomes more and more difficult, not to say impossible. Outside of some rare interesting subjects presented for the appreciation of the meeting, we find nothing but articles sent there to be puffed. Most extraordinary instruments are there proposed and described, in order that the dealer should find for his process, however outlandish it may be, a long and high sounding advertisement. The most cunning are those who, at almost every meeting, have a so-called improvement of an old appliance. The last meeting, among others, was not an assemblage of scientists, but an association of dealers. Well, we are compelled to say that we will not become the means of furthering this commercial sharpness. The Association of Photography should, in our opinion, play another part. The eminent scientists who are at its head should bring up to them the level of this Society, which is capable of rendering great service to science. There are so many questions in our art to be resolved, so many curiosities to satisfy, so much progress to be realized, and especially so many generous aspirations to receive light. If the Association should really become a society of scientific investigation, it would be in a short time the centre of an ardent activity and the field of fecund work. What we have written here is the reproduction of the thoughts of a great number of the members of the Association—scientists and manufacturers.—*L'Amateur Photographe*.

OWNERSHIP OF THE PHOTOGRAPHIC NEGATIVE.

The Paris Tribunal has just rendered a decision in a matter of interest to all. It has established a principle already recog-

nized, that a photographer cannot exhibit nor sell the portrait of his customers without the consent of the parties interested; but it has also decided, on the other hand, that the negatives belong to the photographer, and cannot be claimed by the sitters. In reality, a certain number of photographic cards are paid for, and not the negative. Were it not so, as the negative can be used to reproduce any number of portraits, and could be carried to another photographer, the maker would be exposed to have his work in the hands of any one. This judgment was rendered in a suit brought by Count d'Agoult against the heirs of Mr. Adam Solomon, the sculptor and photographer. Count d'Agout claimed the negatives of the photographs of several members of his family, and among others the portraits of the Countess d'Agoult, well known in literature as Daniel Stern. The judgment of the court is very interesting, inasmuch as it touches on the oft disputed question of photography considered as capable of producing works of art.—*Paris Moniteur*.

“WORDS, WORDS, WORDS.”

It is reported of Boiardo, author of a poem without which we should probably have never seen the “Orlando Furioso” of Ariosto, that he was out hunting, when the name Rodomonte presented itself to him as exactly fitting a foremost person of the epic he was composing; and that instantly returning home, he caused all the joy-bells of the village to be rung, to celebrate the happy invention.

The modern Boiardo is the punny, playful editor of that sprightly, useful weekly, *The Amateur Photographer* of London. He gives vent to his joy thus:

THE PLACE OF PHOTOGRAPHY AMONG THE FINE ARTS.—Mr. Watts has spoken; the Baron R—— has spoken; and now Mr. Xanthus Smith has spoken! We know some of the Smiths, but not Mr. Xanthus Smith. He is apparently a member of the Philadelphia Amateur Photographic Club. At a recent meeting of that Society, held at 907 Filbert Street, Mr. Xanthus Smith attempted to crack that difficult nut of the artistic posi-

tion of photography. Mr. Smith hardly got at the kernel of the matter; but he illustrated his remarks by a number of charcoal sketches. Demonstration in black and white is very appropriate for a Smith. But Xanthus means ‘yellow,’ we believe. Mr. Xanthus Smith should be re-christened.”

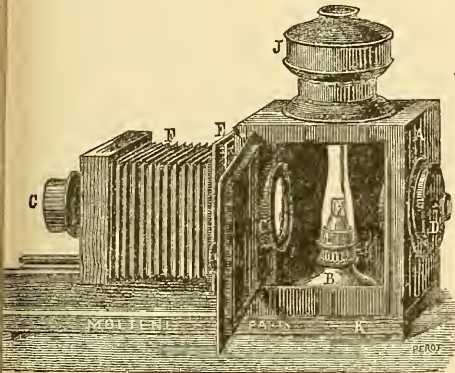
Of course, as our brother is “only an amateur,” we cannot expect him to be informed fully as to who has been who, since photography began. It is too long for him. But our veteran readers know that Mr. Xanthus Smith is by no means green or yellow in our art, but a highly talented and eminently able amateur photographer of long standing, an artist of great repute, and the son of Russell Smith, an artist well known all over the world. He is able to teach art to others, as is shown by the series of articles on “Composition,” which he began in our last number. If our brother is right in his analysis of the “words” which compose Mr. Smith’s name, then there is a manifest contradiction between the name and the name-bearer. Because our fellow-editor is named “Stone,” is that any reason why he should be considered a hard case, except as a punster?

MOLTENI’S ENLARGING AND PROJECTING LANTERN.

Enlarging lanterns for photographs are becoming more and more popular, and we therefore, believe it useful to make known the one made by our French manufacturers which seems the best calculated for the work. This, in our opinion, is the lantern made by M. Molteni. This apparatus, as will be seen by the accompanying cut, is perfectly well adapted to the services it has to perform. The petroleum lamp B, hermetically closed in the cage of the lantern, has but one wick. A concave mirror D, placed behind the lamp moves in a groove so as to project on the condenser C, the maximum of the luminous rays. In front of the condensor is the holder E, which is preceded by a bellows F, these by a frame to which is adapted the objective G; a button H, with the aid of a screw, gives a backward or forward motion in focussing. Owing to the arrangement adopted by M. Molteni,

it is possible to change rapidly the lenses according as it is desired to modify the size of the enlargements, and if the lantern is to be used for projections.

A slight modification in the posterior part of this excellent apparatus allows the use of the oxyhydric light. A lantern of this kind is the indispensable complement of the small photographic appliances; it is especially useful for artists who desire to judge of the



effect of their reproductions when much enlarged; for scientists, and professors who find in the use of projections a most powerful auxiliary; for photographic amateurs, finally, who by means of an enlarging lantern, can transform into a very visible size the diminutive negatives obtained in their travels and excursions taken with the pocket camera.—*Paris Moniteur*.

SOCIETY GOSSIP.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—The annual meeting of the Society was held Wednesday evening, January 6, 1886, with the President, Mr. Joseph W. Bates, in the Chair.

The annual reports of the Treasurer and of the Executive Committee were read, and showed the Society to be in a flourishing condition.

The Committee on Membership reported the election of the following active members: Dr. A. Graham Reed, Messrs. Caspar W. Miller, Frederick E. Ives, William L. Shoemaker, Francis Stokes, and George Rau.

Mr. George B. Wood moved that a vote of thanks be tendered to Mr. Bates for his valuable service as President of the Society for seven years, which was carried unanimously.

In relinquishing his position of President, Mr. Bates expressed his great interest in the study and art of photography, which for thirty years had been his greatest pleasure. He hoped long to continue his interest in both photography and the Photographic Society.

On assuming the President's chair, Mr. Graff made the following address:

"When more than twenty-three years ago, with a few friends (some here present), I assisted in the birth and christening of the Photographic Society of Philadelphia, I scarcely believed that it would have reached so great an age, or that I, after so long a period, should have the honor now paid me of once more being elected the President of the now full-grown, almost middle-aged association.

"I have watched it through its early youth, when the daguerrotype still had its close attention; through its childish and boyish days, when its feeble steps were taken in albumen, malt, tannin, washed emulsion, and the whole catalogue of processes wet and dry.

"I have seen its increasing strength, from the ability to produce pictures in less than five minutes' time; to the portraying of the lightning flash in the infinitesimal fraction of a second.

"I have witnessed the reduction of labor from hours of preparation and vexatious uncertainty of development, to the manufacture of plates ready to our hands, with almost certain production of beautiful pictures, all with so much ease and freedom from care that the whole becomes an amusement such as any one, even with moderate skill and taste, can now indulge in. And yet we look for more. What shall it be? Who can tell what is to be the future of our favorite 'hobby'? How far will the next twenty-three years of this Society see us in advance?

"We now make pictures upon a paper-supported film, and develop them into beautiful negative pictures. May we not hope to have the finished positive impressed upon the paper in the camera without future development, and even then in colors?

"History has shown us that very many of the discoveries and improvements in photography have either been made or brought to usefulness

by amateurs. Should this not be an incentive to our members for striving after even higher flights than those already made?

"The exhibitions of lantern slides, both public and in this room, have shown marked advance and been exceedingly creditable.

"The venture now being made in holding a public exhibition, mostly of amateur work, is a very desirable effort, which I most sincerely hope, and have no doubt, will be entirely successful, and awaken renewed interest in the work it represents to the public, as well as to our members.

"I most heartily thank you, gentlemen, for the honor bestowed upon me this evening."

ROBERT S. REDFIELD,
Secretary.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.—The regular meeting was held Jan. 7, 1886, President Smith in the chair.

Minutes of the last meeting read and approved.

The Committee on Exhibitions reported considerable progress, and invited discussion on the subject of a lantern exhibition for the opening night.

Mr. Virgil Williams, on behalf of the Art Association, offered the use of the large hall and stage adjoining the exhibition room.

Several members promised to furnish slides.

A motion was carried unanimously that a lecture and lantern entertainment be given on the opening night.

The Corresponding Secretary announced that he was in communication with several amateur societies upon the subject of club exchange prints, and that it was probable some organization would soon be effected to facilitate such exchange.

Mr. Howe exhibited a new revolving shutter, which combined speed and freedom from jar, with a very ingenious arrangement for regulating the tension.

Mr. Wagoner passed around a number of views of the Tuoloirie River.

Mr. London and Mr. Lowden also showed several specimens of late work.

There being no further business, the meeting adjourned to hear a paper on lenses by Dr. Passavant.

The lecture was listened to with great interest and attention.

It is impossible at this time to send the doctor's paper for publication, as a large number of drawings and diagrams were used.

W. B. TYLER,
Corresponding Secretary.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.—Upon December 2, 1885, and January 6, 1886, the following gentlemen were elected active members of this Society: William T. Buckley, Robt. L. Belknap, M. L. King, M.D., James B. Ferguson, M.D., John B. McCue, Frank H. Carter, Frederick Bruce, and Pierre Mali; associate member, H. Cazaux; subscribing member, Chas. H. Loeber; corresponding members, James F. Cowee and F. W. Seuff.

The special meeting of Jan. 26th, was devoted to experiments in group-taking by magnesium light, preceded by an interesting paper on the subject by President Beach.

PHILADELPHIA AMATEUR PHOTOGRAPHIC CLUB.—The regular monthly meeting was held on the evening of the 18th inst., Mr. Haines acting as temporary Chairman.

The minutes of the previous meeting were read, and, after being amended, were approved.

Mr. Stuart, the Chairman of the Executive Committee, then read his report, which detailed at length the lantern exhibition given by the Club at the House of Refuge in this city, on the evening of the 14th inst., to the great delight of nearly a thousand boys (inmates) and about a hundred and fifty invited guests. In addition to the slides contributed by the members, a number of comic ones were shown, which caused much laughter among the boys. There was also excellent singing, kindly contributed by friends of our genial treasurer, Mr. Thompson.

The Club's next exhibition will shortly take place at Girard College, in the presence of probably two thousand boys.

These exhibitions never fail to give pleasure, and we strongly advise fellow-societies in other cities to "go and do likewise." Nearly every society boasts of a lantern and screen, and has the use of slides

without number. The cost for gas, etc., need be but four or five dollars—a mere song compared to the pleasure given the young people. The slides most in favor seem to be pictures of boats in full sail, horses running and leaping, dogs, cats, and subjects of a like nature.

The Excursion Committee advised that the members be ready for an excursion on the 22d of February, the place of meeting to be named later.

The "Flower Study" contest, which was intended for this meeting, was postponed till June, as being a more favorable time. It was also decided that the contest for the February meeting should be a "Snow Scene," and for March a portrait study made in a room without skylight, no retouching on negative or print to be allowed. suitable prizes to be awarded the winner of each contest.

Mr. Stuart then said that Mr. Carbutt had offered to sell the Club his oxyhydrogen lantern, for a very small sum, and, as it is more suitable for a large hall than the one we now own, he asked that it be bought at once. The subject was, on motion, referred to the Executive Committee, with power to act.

Mr. Randall stated that he had just seen Mr. Bullock, of the Cincinnati Amateur

Club, who is organizing a lantern-slide exchange, and wishes the coöperation of our club. The details are not yet perfected, but will be shortly, when the subject will be again brought up for action.

After a lantern exhibition, the meeting adjourned.

W. WEST RANDALL,
Secretary.

COLUMBUS (OHIO) AMATEUR PHOTOGRAPHIC CLUB.—The regular meeting of the Society was held Monday, January 18. At the request of the Cincinnati Camera Club it was decided to send them some lantern slides for use at their forthcoming exhibition.

The Columbus Club has a rule requiring each member in turn to furnish a contribution of some kind, as a paper, demonstration, talk, etc., one at each meeting. Members are fined for not responding when their turn comes. The last member was fined a curtain, fixtures, and towels, articles needed.

The Secretary, W. S. Goodnough, presented the following Table of Comparative Exposures for different hours of the day, and every month of the year. The table is one calculated and verified by experiment by J. A. Scott, Secretary of the Ireland Photographic Society.

Hour.	June.	May.	July.	Apr. Aug	Mar. Sept.	Feb. Oct.	Jan. Nov.	Dec.
12 M.	1 sec.	1 sec.	1 1/4 sec.	1 1/4 sec.	1 1/2 sec.	2 sec.	3 1/2 sec.	4 sec.
11 A. M. 1 P. M.	1 "	1 "	1 1/4 "	1 1/4 "	1 1/2 "	2 1/2 "	4 "	5 "
10 "	2 "	1 "	1 1/4 "	1 1/4 "	1 3/4 "	3 "	5 "	6 "
9 "	3 "	1 "	1 1/4 "	1 1/2 "	2 "	4 "	*12 "	*10 "
8 "	4 "	1 1/2 "	1 1/2 "	2 "	3 "	*10		
7 "	5 "	2 "	2 1/2 "	3 "	*6			
6 "	6 "	2 1/2 "	*3 "	*6				
5 "	7 "	*5 "	*6					
4 "	8 "	*12						

* Accuracy depends on yellowness of sunset.

A man walking	2 1/2 miles	an hour,	moves	43.7 inches	a second.
"	3 "	" "	"	55.11 "	"
A ship sailing	9 knots	" "	"	15.19 feet	"
"	12 "	" "	"	20.24 "	"
A boat	21 "	" "	"	35.43 "	"
A race-horse going	a mile in 2.14		"	39.37 "	"
An express train going	37 miles an hour		"	54.58 "	"
"	60 "	" "	"	87.95 "	"
A carrier pigeon moves	.	.	.	59.00 "	"
An ocean wave in a gale, moves	.	.	.	68.95 "	"
Rapid flight of birds	.	.	.	281.82 "	"
A cannon ball moves	.	.	.	1640.4 "	"

The Secretary also gave Burton's Table of Comparative Exposures for different subjects which is quite generally known, and also a table, page 81, giving the rapidity of various moving objects.

W. S. GOODNOUGH,
Secretary.

EXHIBITION OF THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

THE Exhibition of the Photographic Society of Philadelphia, held in that city January 11th to 16th, inclusive, was a great, a glorious success in every way.

This was the editorial card of invitation.

COMPLIMENTARY SEASON-TICKET.

Exhibition of Photographs
by the
Photographic Society of Philadelphia,
at the
ACADEMY OF THE FINE ARTS,
January 11th to 16th inclusive.
Open daily from 9 A.M. until dark, and 8 to 10 P.M.
Exhibition of Lantern Slides.
Thursday Evening, January 14th, at 8 o'clock.
Admission *Representative of the Phila. Photographer*
with Compliments of the Exhibition Committee *Lady.*

It was more than a simple exhibition of pictures for the amusement of curious visitors: it was instructive as well as pleasurable; refining as well as entertaining; an object-lesson, which told of the wonderful jumps which the art has made during the past three years; told of the immense increase of its patrons, and of their sincere earnestness in prosecuting and improving the most delightful diversion on the face of the earth.

There were 114 exhibitors, 45 of whom were members of the Society. There were 11 lady exhibitors, and 16 foreign ones. In all, 1871 pictures were shown. All sorts of dry-plate, lens, and camera work were shown; and examples by the carbon, platinum, bromide, isochromatic, phototype, porcelain, silver, and glass positive processes were there, mostly in rich profusion.

The management had secured three of the large exhibition-rooms of the Academy of Fine Arts, which afforded such ample wall space that, except in a few unfortunate in-

stances, no pictures were hung higher than seven feet.

The greatest praise is due to the hanging committee, Messrs. Robert S. Redfield, John G. Bullock, and C. R. Pancoast, for the admirable manner in which they performed a most difficult and somewhat thankless task.

Their system of classification was excellent. All the foreign contributions were hung in one quarter; the exhibits of the ladies were "flocked together;" the Society members were made to show their strength by "union;" and in one room all framed pictures were hung.

There was an entire absence of advertising catches, and only on some of the foreign exhibits were even the words "for sale."

The attendance of the public was generous and appreciative, as well as sometimes critical.

Though placed in close proximity with the splendid collection of paintings also on exhibition, the photographs did not suffer, either by contrast or for want of attention from visitors.

To one who has become almost a "saturated solution" of photography, as we have, it was the greatest delight, first to see such an outgrowth under the auspices of our own veteran Society, and to see the earnest attention accorded it by the public.

Entering those splendid galleries, and seeing on each side, as far as the eye could reach, such a collection of plain, pure, and unadulterated photographs, was a pleasure not soon to be forgotten.

We have seen a great many such exhibitions in various parts of the world, and this one undoubtedly excelled them all, with perhaps the single exception of the one at the Centennial Photographic Hall, in 1876.

In every way, the old Society has cause for congratulation upon the success of this last enterprise. It was fine. And it was not all due to the "young blood," either. It is true that in several instances the work of some of the children of the older members hung there, but next to it were proofs that *pater familias* still held his own, and sometimes, of course, a little more than his junior.

It was indeed a pleasant sight to see these

old gray-beards and bald-heads (we are neither personal or impersonal in this) there in person, showing the same enthusiasm they did twenty-three years ago, when dear Guillou, and David, and Wilcox, and Wenderoth were alive. Pleasanter, even, was it to see their bright children "trained up in the way they should go," not only, but "going for" photography with all their might and main.

The variety of subjects was splendid, and the individuality shown in the work was interesting.

"Just as the twig is bent the tree's inclined," was verified here too by the work shown by some of the members. For example, Mr. Bement is a manufacturing machinist, and exhibited the best pictures of machinery; Mr. Barrington, a practical railroad freight manager, gave us views of picturesque bits along railroads and canals; Mr. Woods, a professional artist, splendid genre pictures; Mr. —, a dealer in monuments, views of cemeteries and antique graveyards; Mr. —, a famed yachtsman, a fine series of marines; Dr Howe, a stock-raiser, some splendid cattle-pieces, and so on to the end of what might be a very long chapter. But you focus, and we will proceed with some more definite comments upon the pictures shown.

And now, how are we to manage it? If we omit anyone's name (as we frankly state we must), be assured, though it is necessary, it is not because we did not notice and approve, but simply because it would have been a work of days to have reviewed such an immense collection as was there. We cannot now remember seeing one really bad picture. Everybody seemed bound to exhibit their best work, and we are sure they all did it.

We saw only one unhappy man during the many hours we were there, and he considered the exposition "a failure because it hadn't the ice palace of Montreal" there. We suggested that, probably, the print was *measly* and could not be sent.

We will begin our brief review with the work of the ladies. Old John 'Tobin once said:

"The man that lays his hand upon a woman,
Save in the way of kindness, is a wretch
Whom 'twere gross flattery to name a coward."

And even if this were not so, there would be no occasion for the laying-on of hands here, for the average work of the lady exhibitors was first class, and every prize offered them was taken.

Miss Jessie Gibson, of Glasgow, Scotland, probably had the best "figure compositions" in the exhibition. Her "Gipsies" and "It's Just Our John" are artistic in every sense, and her prints did full justice to her negatives.

Miss E. Kendall, Brookline, Mass., showed considerable individuality in the treatment of her fine views along the coast of Maine.

The pictures of Miss Nina Tatham were very creditable, notably "What does He See?"—a picture of a horse apparently startled by his own cast shadow at his side. Well done.

Miss M. L. Corlies, daughter of S. Fisher Corlies, one of the first members of the Society, is possessed of genuine artistic feeling, and poetic sense, as well. Her brookside studies are lovely; her interiors of homes and studios are capital. Like Miss Bremer's Hedvig, "her spirit is evidently of an inquiring and investigating kind. She likes to seek to the origin, to the fountain-head, to the innermost of everything," and this spirit has led her to some of the richest treasures for her camera, which she has secured most successfully. And so Miss J. A. Hooper's river scenery seems to give evidence of a nature to whom "to see the great in nature was a continual delight," to which is added a decided talent for camera-catching the most delightful "bits."

Miss B. Snow, Brookline, Mass., evinces a quaint way of looking at things, with a vein of humor which is delightfully shown in her pictures, such as "A Novel Pet." Her landscape work is also very fine, and secured her an award.

Miss E. M. Tatham's picture of "A Nun" was one of the best portrait studies (of which there were too few) in the exhibition. Her "Bathers" is a gem.

Miss A. H. Chace exhibits a good deal of poetic feeling in her productions. One of them, "A Lady on the Beach," is particu-

larly attractive as a work of art, and would do credit to a master at the camera. She has certainly so rendered her subject as to make one feel that the beach wanderer is—

“Pretty to walk with,
Witty to talk with,
Pleasant, too, to look on.”

Miss May M. Vaux, as her old Philadelphia name would lead one to suppose, has well spent her time in securing pictures of some of the quaint old houses of the Quaker City. She has chosen her points and her lighting admirably, and the technical quality of her work is admirable, too.

Miss May C. Butterick comes the last of the “eleven,” with her picturesque “Goat-team and Children.” A real pretty picture it is.

Well done for the young ladies! May their number increase, for every one added to our number will add refinement to our art. There is a vast field for them, and they will pardon us if we show signs of becoming poetic over the hope of their number increasing, for to them and to all who focus the camera, it is true that the country is large, and—

“No pent-up Utica contracts your powers,
But the whole boundless continent is yours.”

By courtesy, the foreign exhibits come next. We alluded to several of these in our last issue. Of the additional ones, we were much attracted by Mr. Harold Sands's views of old abbeys and crypts, and illustrations of English school-life. They were exceedingly well done.

Mr. J. Geo. Gibson, Tyneworth, England, shows varied talent in his “Give us this day our daily bread,” and views with natural clouds. His “Old Priory” is also a nice study.

Mr. Wm. Willis, Bromley, England, exhibited a lovely selection of prints made by his platinum process. One, of a cottage at Bury, was the gem of the collection.

Mr. Geo. Lemaistre took the prize for Class 30, as will be seen below. His instantaneous marine effects were of—

“The hell of waters! where they howl and hiss,”

and were most deftly caught. He seems to

have fairly gloated with his camera over the feast before him. Now we look upon the incoming breakers with a dozen varieties of moving, breaking water in one picture, and then, diverted to left or right of the collection, by views of waves splashed to atoms in their futile young efforts to develop softness out of the rocky reef, we are forced to cry out, in our enthusiastic admiration—

“Once more upon the waters! yet once more!
And the waves bound beneath me as a steed
That knows his rider. Welcome to the roar!”

Mr. P. Mawdsley treated an admiring public to four frames of his gems of street, lake, and landscape views.

From Mr. H. Symonds, Portsmouth, England, we would naturally expect a magnificent collection of sailing yachts. To our mind, there was more “go” in his studies than is usually seen in such views; but there was the most poetry in his “Towing”—one poor, old hulk being steamed along by another, like “the blind leading the blind.” It was an admirable chance and splendidly caught.

Much thanks to our foreign compeers for the pleasure they have given us.

Mr. Walter F. Price has a keen sense of the picturesque somewhere in his chemicals, or brains, or camera. His “Buck-board” load of people, called “On the Marshall Road,” brought up tender recollections, and patriotic ones as well, for some such picture must have been presented—

“When Yankee Doodle come to town,
Along with Uncle Goodwin.”

The “Tennis Party” and portraits of two colored girls are also fine.

Mr. C. S. Bradford, Jr., touched all hearts by his “Me Pigtail.” A darling little missie was seated with her back turned to the audience, in a lovely child attitude. Her plait had evidently just been “done up” for the afternoon, “not to be disturbed again until bedtime.” Her bare neck and shoulders, of whitest skin, contrast beautifully with “me pigtail,” whose ribbon bow at the end is followed by a simple little summer dress, which takes away none of the grace of the prettiest little figure in the

world. The whole makes a perfect actuality—a genuine picture of life.

Mr. Wilfred A. French, Boston, is one of the most refined amateurs in our country, and so he should be, since so much of his life has been devoted to culture. His rocky coast scenes near Mt. Deseret, his quaint architectural studies, and his unrivalled picture of chrysanthemums—his pictures all, on porcelain and paper, verify what we have said of him.

Prof. H. A. Rowland, Baltimore, sent a fine collection of surf pictures of—

"The many-twinkling smile of ocean."

Mr. John L. Dumont included in his collection his prize pictures, "Listening to the Birds" and "Winter." His "Ye Olden Time Store" was also a quaint "wayside gathering."

Mr. A. Clements, Philadelphia, made a fine display of platinum prints.

Mr. John G. Hood, Philadelphia, had two frames of his landscape pictures most tastefully grouped and of admirable quality. Mr. Hood is one who understands that—

"True beauty dwells in deep retreats,"

and who knows how to bring them from their hiding-places with his witching camera.

Mr. Geo. B. Wood, Philadelphia, as was to be expected, swept away several of the awards. He goes where people sow, reap, rear calves, shear sheep, fatten pigs, feed cows, hoe corn, gather vegetables, pickle meat, pick berries, have spelling bees, and—steal turkeys, for his pictures, and secures those which are humorous, natural, and most picturesque.

Dr. E. Wallace, Jr., Mr. David Pepper, Mr. J. Murray Jordan, Dr. Kirkbride, Mr. H. T. Coates, Mr. Samuel Sartain, Mr. Jos. W. Bates, and Galloway C. Morris, Esq., all old members of the Society, of course made their best contributions.

We noted also, among the gems of their collections, the following: "A Ruined Cottage," by Geo. W. Tatham; "A Fisherman on the Rocks," by F. G. Rogers; "The Hunter," by F. G. Cauffmann; "Sunsets," by Dr. A. G. Reed; "An Extension on a Dog and Some Pretty Bits," by Mr. Geo. Vaux; "A Shady Roadside," "A Smithy,"

and "Interiors of the Academy of Fine Arts," by Mr. W. L. Shoemaker; "A Cocker Spaniel," by Mr. Jno. Struthers; "Over the Garden Fence," by L. Reichmer, Jr.; "Photomicrographs," by Dr. G. A. Pearsol; "Splendid Serjania Diatoms" (of wondrous sharpness), by W. H. Walmsley; "A Child in Bed," by R. Laurent; "Taking a Walk," by W. B. Kruse; "Views of Luray Cave," by C. H. James; "Landscape Bits," by S. C. Nash; "A Lawn Tennis Party," by D. Townsend; "Ready, Sir," by R. T. Hazzard; "The Organ Grinder," by A. Hemmenway; "Snow Scene," by Samuel C. Partridge; "Point Cabullo" (a fine study), by Mr. H. P. Phillips; "Easter Sunday," by Mr. Geo. Tasheira (the last three from the San Francisco Society), "Noon-day Gossip," by Mr. J. H. Hunter; "A Portrait Study," by Mr. R. H. Lawrence; "Chrysanthemums," by Mr. R. P. Rathburn; "A Village Residence," by Mr. F. R. C. Perrine; and the "Genesta," by Mr. C. R. Pancoast.

The younger exhibitors, who were distinguished by excellent works, included the following: "Landscapes," by Mr. D. Pepper, Jr.; "Cascades" (very artistic in choice and treatment), by Mr. Paul J. Sartain; and "The Natural Bridge," by Mr. J. M. Elliott. The varied printing and other processes were represented as follows: The Isochromatic, by an admirable showing from Mr. F. E. Ives; Eastman bromide paper, by Messrs. W. H. Rau & Co. and Roberts & Fellows; phototype reproductions of "Artistic Houses" and "Darley's Shakespeare," by F. Gutekunst, Philadelphia, with a collection of portraits unequalled by any process printing; collotype prints, by The Wells & Hope Company; and carbon enlargements, by Mr. G. E. Cabot.

Mr. Albert Moore made a splendid display of enlargements of various subjects, which were without a rival.

The Lehigh University, Mr. W. I. Holmes in charge, exhibited a selection of lovely landscapes.

Mr. W. D. H. Wilson's "Two Feet" created as much amusement as the tasty arrangement of his exhibit attracted admiration. His portraits were the best on exhibition. His picture of "Charlie" is an

admirable child picture. Capital, all showing "a sympathy with nature," which we all need to imbibe.

Mr. A. S. Murray's "Princess Ida" (a parade of young girls through a woodway, as though going to study how to focus) was a fine thing, as was also that other "Procession,"—of Boats, by the same skilled artist.

Mr. Jno. C. Browne's "Catalpa Tree," in full bloom, of course, secured the award. His "Spinning-wheel" made us think of Mrs. Browning's lines:

"The woman singeth at her spinning-wheel,
A pleasant chant, ballad or barcarolle;
She thinketh of her song upon the whole
Far more than of her flax."

Mr. W. H. Jackson, Denver, Col., made one of those overwhelmingly magnificent exhibits, for which he is so distinguished, which we cannot undertake to describe, for we failed when trying to do so at New Orleans. He, of course, secured one of the awards for his splendid "Spanish Peak," Colorado. His mountain scenery compels us to sing with Wordsworth:

"The sounding cataract
Haunted me like a passion: the tall rock,
The mountain, and the deep and gloomy wood,
Their colors, and their forms, were then to me
an appetite!"

In splendid contrast with these views of the "Wild West" were the admirable views of "The Sunny South," by Mr. H. L. Roberts (of Roberts & Fellows); and those of the "East" by the "Corsican Brothers" of the Society, Messrs. Robert S. Redfield and John G. Bullock.

Surely all the varieties of scenery known are to be found in our beloved native land, and young America well knows how to camera round it, and secure it.

Messrs. Redfield and Bullock work a great deal together on the same subjects, so that one can scarce tell their productions apart, for—

"Look here, upon this picture, and on this
The counterfeit presentment of two brothers."

We have not forgotten Mr. G. F. Wilder, whose "Weeping Birch," "Virginia Family," and "Cockerel" were the

attractions of the quarter in which his pictures were hung.

The show of transparencies for the window was not large. Mr. Jno. Bartlett's flowers were the most lovely of the collection, and really works of the arts poetic and photographic. Mr. W. C. Russell's immense (24 x 32) transparency of Harper's Ferry was a splendid enlargement. Among others some fine things were shown by Mr. W. S. Bell, Mr. J. M. Elliot, and others, whose names we could not discern.

The following is the list of awards:

By Professionals Only.

1. Landscapes, any size, W. H. Jackson & Co.

By Amateurs Only.

2. Landscapes, over 5 x 8 inches, J. G. Bullock,
3. Landscapes, $4\frac{1}{4} \times 6\frac{1}{2}$ to 5 x 8 inches inclusive, R. S. Redfield.
4. Landscapes, under $4\frac{1}{4} \times 6\frac{1}{2}$ inches, J. H. Burroughs.

By Professionals Only.

5. Marine Views, Surf, no award.
6. Marine Views, Sail, G. West & Son.

By Amateurs Only.

7. Marine Views, Surf, H. A. Rowland.
8. Marine Views, Sail, C. R. Pancoast.
9. Figure Composition, over 5 x 8 inches, George B. Wood.
10. Figure Composition, $4\frac{1}{4} \times 6\frac{1}{2}$ to 5 x 8 inclusive, George B. Wood.
11. Figure Compositions, under $4\frac{1}{4} \times 6\frac{1}{2}$ inches, George B. Wood.

"Figure Composition" included groups and all pictures in which one or more figures make the principal interest of the picture, and which were not included in the "Special Composition," Classes No. 15, 16, 17, and 18. Mr. Wood's prize subjects were:

1. "Turkey Beats Possum and Coon all to Nothin'. But when I prays to be sent for a turkey I *always* gets him."
2. "Dar's One Mo' Yet Over Dar." "Dat Corn takes a Site o' Hoein'."
3. Negro Minstrels. Three prints in one frame.

By Ladies Only.

12. Landscapes, Miss B. Snow.
13. Marine Views, Miss E. M. Tatham.
14. Figure Composition, Miss Jessie Gibson.

Special Compositions.

15. Cottage Door, W. L. Shoemaker.
16. Wayside Fountain, C. R. Pancoast.

17. Village Smithy, W. L. Shoemaker.
 18. Ploughing, no award.
 19. Animals, Dr. H. M. Howe.
 20. Still Life, S. Fisher Corlies.
 21. Fruit, Flowers, etc., S. Fisher Corlies.
 22. Trees, J. C. Browne.
 23. Snow and Ice, J. E. Dumont.
 24. Architecture, George Bankart.
 - 25a. Interiors (large), W. H. Jackson & Co.
 - 25b. Interiors Calcutta Exhibition (small), C. R. Pancoast.
 26. Sculpture, George Bankart.
 27. Machinery and other manufactured objects, Frank Bement.
 28. Microphotographs, Dr. G. A. Piersol.
 29. Enlargements, A. Moore.
 30. Instantaneous Effects, not otherwise classified, George LeMaitre.
 31. Platinum Prints, W. Willis.
 32. Gelatino-Bromide or Chloride Prints, no award.
 33. Porcelain Pictures, no award.
 34. Transparencies, William L. Russel.
 35. Sets of 6 lantern slides, negatives and slides to be made by exhibitor, J. E. Brush.
 36. Sets of 6 to 12 pictures, taken in a foreign country or by a foreign exhibitor, Dr. E. Wallace, Jr.
 37. Pictures by any new process not before publicly exhibited, no award.
- Portraiture, W. W. Winter, honorable mention.
- The Judges were, Messrs. Geo. W. Hewitt; Thos. B. Craig; John Sartain; D. Anson Partridge and Wm. H. Rau.

THE BANQUET.

The time fixed for the annual collation and exhibition of the transparent qualities of the Society was Thursday evening, January 14th; the place, in the Lecture Room of the Academy of Fine Arts. The attendance was large, and the affair was, as usual, a great success.

Long before the audience began to crowd in we saw the Chief Cook, Mr. Frank Bement, growing warm over his fires, and testing the mysteries of his new self-made dissolver. The latter he explained to us, but we were diverted from it by a loud conversation heard over on one side of the banquet hall. The newly elected President, Frederic Graff, Esq., not venerable because so young in spirit, had permitted himself to be drawn into a discussion "on the best

developer" by a veteran amateur, "whose few hairs were bristling" at opposition. It was trying to the members, and was stopped.

Mr. John Carbutt and Mr. William H. Walmsley now entered and sedately bowed to the young amateurs who "look up to them," and when either of them spoke no one knew which most to admire, "the severe logic of the melancholy reasoner, or its graceful evasion by the tricksome fantasy of the joyous poet."

S. Fisher Corlies, Esq., gentle enthusiast in the cause of photography, which he has lived to see triumphant, was caught pouring into the ear of President Beach, of the New York Society, some tale of amateur woes, which the recipient was doing his level best to comprehend.

The room was now nearly full. F. T. Fassit, with tremulous pleasure, announced the bill of fare, when David Pepper, beaming with the aristocracy of nature, called the jovial gentleman to order. The house continued to fill, the conversation thickened, and Albert Moore enlarged his voice, and tried to get off a joke about the loving camera, when he was interrupted with struggling emphasis by artist George Wood.

Now the dribblets of talk combined into a stream, and Mr. Galloway C. Morris climbed to the stage and announced that the banquet was a transparent fraud, and could consequently be partaken of in the dark. For the sake of economy the lights would be turned out and the dishes projected by Mr. Frank Bement.

The mystery of the darkened hall made it necessary for Mr. Morris to announce the order of things, which, in turn "took with ravishment the thronging audience."

The entertainment consisted of edibles, drinkables, athletic and arenic performances, literary exercises, magical mysteries, and dessert, in the order in which they appear below. (It was one of the stringent rules of the Society that each dish should be prepared entirely by the gentleman who presented it, and to prevent imposition, he should first test it himself and then pass it to the audience.)

At the whistle of the Bement Dissolver the collation began, and continued until the following bill of fare was completed:

Mutton Broth,
F. T. Fassit.

Trout—Largest in Front,
S. Fisher Corlies.

Enfield Falls Water,
Frank Bement.

Game—of Grab,
F. T. Fassit.

Lambs—Under a Tree,
Charles Barrington.

A Tender (loin) Scene—Under an Umbrella,
Samuel M. Fox.

Upon being cheered and called for a speech, Mr. Fox delivered the following oration on "Art in Nature:"

"A winning wave, deserving note,
In the tempestuous petticoat,
A careless shoestring, in whose tie
I see a wild civility,
Do more bewitch me than when art
Is too precise in every part."

Mr. Fox was carried away by an *encore*, and was followed by

Mushrooms and Greens,
J. C. Browne.

Views of the Brandy (and) Wine,
J. H. Burroughs.

Salt Water—From Atlantic City,
W. H. Rau.

Spring Lambs
(Brown Sauce du Cyanide),
John C. Browne.

The conviviality now grew intense, and Mr. Morris thought it would be well to have the literary and other exercises before the bill of fare was ended. The following took part:

Under the Willows—Song from the Mikado
(Tit-willow),
W. H. Vaux.

Run High Jump,
(Gymnastic feet)
David Pepper, Sr.

The Wreck—Song.
J. C. Browne.

The last was full of the rarifying moist atmosphere and mysteriously soft light which everyone who has tried to focus on a wreck after taking views of the Brandywine, will

well remember. There were eighty-three verses to the song, one of which read thus:

"Haply across the shuddering deep,
One moment seen, a snowy sail
May glance with one tumultuous leap,
And pass with one exultant hail."

"Chorus.—Ah! into ah—total wreck."

"Ready, Sir!"—Trick Dog,
R. T. Hazzard.

"Boss of the House"—Baby Show,
Robert S. Redfield

Tremendous applause and a wild confusion.

The Old Mill—Recitation,
Wm. D. H. Wilson.

"Mine be a cot beside the hill,
A beehive's hum shall soothe my ear,
A willowy brook that turns a mill,
With many a fall shall linger near."

The By-way,
Dr. Piersoll.

Essay on "Sympathy with Nature," which ended (yes, it ended) thus:

"How oft in spirit have I turned to thee,
Oh sylvan way! thou by-path through the woods,
How often has my spirit turned to thee."

An Old Carolina Mill (Song),
H. L. Roberts,

"A thing of beauty is a joy for ever;
Its loveliness increases, it will never
Pass into nothingness."

"A Dull Day,"
Robert S. Redfield.

Poem of the evening: "What the Dull Day said to the Photographer."

"Don't view me with your camera—eye,
But pass my imperfections by.
Large streams from little fountains flow,
Tall oaks from little acorns grow."

Part II.

"One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can."

The amphitheatre exercises now began, while Mr. Redfield retired amid loud applause.

Maud S.—Horse Trick,
S. Fisher Corlies.

Lawn Tennis—Prize Game,
David Pepper, Sr.
Polar Bears—Waltz,
John C. Browne.

Micro-manipulations—"The Venturesome
Flea,"

William H. Walmsley.

Village Smithy—Feats of the Trade,
William L. Shoemaker.

Conclusion—Dessert.

"After Breakfast Scene,"
and
"A Touch of Jack Frost,"
J. E. Brush.

Water Fountain,
H. L. Roberts.

The audience was also entertained by transparencies from negatives by Mr. John Carbutt, J. M. Jordan, Miss Corlies, J. M. Elliot, W. C. Russell, Dr. Ellerslie Wallace, and H. C. James.

It was altogether a most enjoyable occasion, followed by a concert near the Exhibition Rooms by the Germania Orchestra.

That such affairs, so productive of good, may grow plenty we heartily desire, and congratulate all concerned upon this one last past.

OUR PICTURE.

THE sweet little picture which embellishes our current issue was intended for the New Year impression, but, alas! the sun was not good enough to us to enable us to get the prints done. The little pet who is the "central figure" of the composition, seems to have been making a surreptitious visit to her Christmas stocking, and now is caught in the act of coming down the stairs to make a clean breast of it, her hands laden with the playthings of the future, and a sweet "good morning" just uttered, as any one can discover from the pose of her little "button-hole" lips.

It is a simple little "home scene," but "awful sweet," and beyond criticism.

The photographer of the occasion is Mr. D. T. Burrell, Brockton, Mass.

Not having enough negatives for our

purpose, Mr. Burrell made us some duplicates upon his own plates, by contact. They surely speak very well for the structure of the emulsion film, and are in every way equal to the originals.

The ability to reproduce negatives in this way gives a new power to the photographer.

The prints were made on the N. P. A. paper, imported for us by Messrs. E. & H. T. Anthony & Co., and at the establishment of Messrs. Roberts & Fellows, 1125 Chestnut Street, Philadelphia.

PERTAINING TO THE



ST. LOUIS CONVENTION.

A meeting of the St. Louis Photographic Association was held this evening, to which all Stockdealers, Dry Plate Manufacturers, Professionals, and Amateur Photographers of this city were invited. The meeting was well attended, and opened by President G. Cramer at the usual hour. Mr. Cramer stated that he had called the meeting for the purpose of considering whether it would be advisable to make some efforts to entertain our visitors at the next Convention, and try to raise some money for this purpose. The idea met with hearty approval, and in a very short time nearly a thousand dollars had been subscribed. Mr. Somerville was then elected Treasurer. Since some of our Photographers were detained from attending this meeting, a committee was appointed to devise some plan to entertain our friends, and report at our next meeting. A motion made by one of the members was carried unanimously, that we, the St. Louis Photographers, resolve not to compete for any of the prizes offered at the next Convention, yet promise to do all in our power to

make it a grand success by as fine an exhibit as possible.

R. BENECKE,

Secretary St. Louis Photog. Assoc.

Director's Room, Exposition Building,
St. Louis, Jan. 16, 1886.

January 6, 1886, 10 A. M.

First meeting of Executive Committee of P. A. of A. for 1886. Present: W. H. Potter, President; H. McMichael, Secretary; G. M. Carlisle, Treasurer; G. Cramer, D. R. Clark, and past officers J. Landy, W. A. Armstrong, and Joshua Smith. Meeting called to order by G. Cramer, Chairman.

Resolved, That the Chairman appoint an auditing committee.

W. H. Potter and D. R. Clark were then appointed, and, on motion, G. Cramer was added to the committee.

The Treasurer and Secretary then presented their reports, which were referred to the auditing committee.

Resolved, That the local Secretary receive two hundred and fifty dollars (\$250.00) as compensation for services for the year 1886.

Resolved, That all members of the Association be welcome to the Executive Committee meetings.

A draft of a new Constitution and By-laws, presented by Mr. Edward Cope, of Philadelphia, was referred to a committee on Constitution and By-laws.

Mr. Robert Benecke was then elected local Secretary.

Adjourned, to meet at Exposition Building at 3 P. M.

EVENING SESSION.

Mr. Cramer then stated that, according to Article IV. Section 2 of Constitution, the President elect is entitled to preside over the Executive Committee meetings, and therefore resigned his position to the President, W. H. Potter.

Mr. Cramer, on behalf of the photographers of St. Louis, invited the members of the Executive Committee to be present at a meeting of the local Society on Monday evening next.

Accepted.

Resolved, That the seventh annual Convention be held June 22 to 25 inclusive.

Adjourned.

January 18, 10 A. M.

Meeting called to order by President Potter.

Resolved, That the proposition of C. D. Mosher, of Chicago, be returned, as being too complicated for action by the Executive Committee.

Mr. Joshua Smith was appointed to confer with Mr. Mosher in regard to the same.

Resolved, That G. M. Carlisle be authorized to procure proper badges for 1886.

Prize matter: Mr. Joshua Smith was appointed to receive further contributions to the medal fund.

Resolved, That the Chair appoint a committee of three on design of medals.

Committee appointed: Joshua Smith, J. Landy, and F. W. Guerin.

Adjourned.

AFTERNOON SESSION, 3 P. M.

Competitors for the prizes offered by the Association are requested to answer the following questions, and sign a certificate as below:

Questions.

1. What lenses were used?
2. What make of plates?
3. What developer?
4. What paper?
5. Add any special information as to developing, intensifying, reducing, etc., that you may consider of value.

Certificate.

I, the undersigned, certify on honor that each and every photograph entered by me to compete for prizes offered by the P. A. of A., at the Convention to be held at St. Louis, Mo., in 1886, is printed from a negative or negatives made since the Convention of said Association held at Buffalo, N. Y., July 14 to 18, 1885.

Resolved, That the prizes shall be awarded by a committee of five members of the Association, to be appointed by the President, subject to the approval of the Executive Committee. The report of the awards to be made on Thursday morning.

Resolved, That twelve silver medals be awarded in addition to the ten gold medals provided for by the resolution of the Association, and the awards be as follows: For

exhibits of members of the P. A. of A., including United States and Canada :

Six gold and silver medals for the best twelve exhibits of portrait photography.

Two gold and two silver medals for best four displays of other photographic productions.

For foreign productions :

One gold and one silver medal for best two collections of portrait photography.

One gold and one silver medal for best two displays of other photographic productions.

All foreign exhibits competing for prizes are to become the property of the Association.

Two silver medals of merit will be reserved for any contingency that may arise, and will be awarded by the Executive Committee.

Instructions to judges as follows :

Each member of the Committee to make his examination separately, and consider the following four qualifications :

1. Light and shade.
2. Position.
3. Composition.
4. Chemical effect.

Ten points shall be the highest award in any one branch, consequently forty points the highest that can be awarded to one exhibit by any one judge.

The exhibits having the most points shall receive the gold medals; those next, the silver medals.

As all gold medals are of equal value, only the total result of the awards shall be published; the same conditions for the awards of silver medals. The awarding committee shall have a special meeting before the Thursday morning session, to combine reports and come to a final result by striking an average.

Resolved, That the President appoint a committee of three to award the prize of one hundred dollars offered by the Association for the best paper of practical value presented at the Convention, and that this committee shall have one month's time to investigate before making the award.

January 19, A. M.

Resolved, A cordial invitation is hereby extended to all foreigners connected in any

way with photography to attend our seventh annual Convention at St. Louis, U. S. A., June 22, 1886.

Resolved, That Messrs. G. Cramer, F. W. Guerin, and W. H. H. Clark be a Committee on Hotels.

Resolved, That one session be held from 9 A. M. until adjournment each day during Convention.

Resolved, That the art and stock departments be closed each day from 9 A. M. to 12 noon, to secure a full attendance at the meetings.

Resolved, That three hundred dollars be set aside for a stenographer.

Resolved, That the President be a committee of one to employ a stenographer.

Resolved, That the President appoint a committee of two to revise the stenographer's report of proceedings before they are given out for publication.

H. McMichael and G. Cramer were appointed on said committee.

Resolved, That Samuel Wardlaw, of New York, and C. C. Kenny, of New Jersey, be appointed Vice-Presidents of their respective States, in addition to those recommended by the Nominating Committee.

Resolved, That the proposition received from ex-President J. E. Beebe is considered by the Executive Committee beyond their province.

PROGRAMME.

First Day.

Address of welcome.

Response by President and opening of Convention.

Roll call of members.

Reports of standing committees, consisting of Chairman of Executive Committee and special committees.

Report of Committee on Progress of Photography.

Appointing a committee to nominate officers, and select location for next Convention.

Miscellaneous business.

Annual report of President.

Second Day.

Papers and essays.

Discussions.

Papers.
Discussions.

Third Day.

Report of the Committee on Awards.
Report of the Committee on Nominations and Location.
New business.
Practical manipulation under the skylight and in the dark-room.
Printing.
Election of officers and selection of location.

Fourth Day.

Reports of committees.
Unfinished business.
New business.
Closing ceremonies.

H. McMICHAEL,
Secretary.

**THE WORLD'S PHOTOGRAPHY
FOCUSSED.**

At the Liverpool Amateur Society Mr. J. H. Stevens, engineer, read a very practical paper on the reproduction of plans by the aid of photography. The original drawings of the Ordnance Survey are made on a scale of twenty-five inches, and then reduced by photography to a scale of six inches. The author not having been successful in getting these reductions made with the desired exactness by professional photographers, was forced to give them his personal attention. Above all, it is necessary to possess a very good lens. The cheap lenses, which are good enough for landscapes, cannot be used, said he, for the reproduction and reduction of engineers' drawings. After having calculated the desired reduction, a parallelogram is traced on the ground glass of the camera, and this with the greatest precision. It is not sufficient that the sides of a drawing should correspond with a reduction. It is necessary, besides, to trace like diagonals on the ground glass, so that each part of the photographic print should be absolutely true. It is necessary to use an old style solid camera, and to have the drawing to be re-

produced and the camera precisely in the same vertical and horizontal planes. Finally, it is also important that the positive paper should not lose its shape in toning and fixing; this is avoided during the drying.

At the Photographic Society of Ireland Dr. Scott exhibited and explained the Eastman-Walker Roll-holder. Wherever it is shown the roll-holder gathers quick advocates.

At the Bolton Photographic Society, same date, Mr. R. Harwood exhibited a half-plate Eastman roller slide, which was much admired for its ingenuity and beauty of workmanship.

The Rev. J. W. Cundey gave a lantern exhibition and threw a number of Swiss views from his own negatives on the screen.

At the South London Photographic Society Mr. E. Dunmore drew attention to the question he brought before the previous meeting, regarding the need of protecting gelatine negatives on paper from the influence of sensitized paper. A gentleman then said he had taken a large number of prints from one negative without spots making their appearance, but they were told that ready sensitized paper had been used which contained very little free silver; therefore, it was no criterion as to the safety of changing from glass to paper, for he did not suppose there were many professional printers who would think of using ready sensitized paper. He then handed to the Chairman a sheet of gelatine and some paper coated with a solution of gelatine, which had been in contact with sensitized paper about a week; there were a large number of the red spots complained of in each instance. He considered that it was necessary for those who wished to introduce such a change in the mode of working to provide a means of protecting the film from such palpable injury, and he knew of nothing better than collodion for the purpose.

Mr. W. England had made many thousands of prints from some of his old paper negatives, which were varnished. When these became stained he was able to remove it by soaking them in alcohol. He preferred seed lac dissolved in alcohol at ordi-

nary temperature, a drachm of castor oil being added to each ounce of varnish.

Mr. W. M. Ayres spoke in favor of shellac dissolved in cold spirit.

Mr. E. Dunmore thought seed lac made the best varnish, and was easily decolorized by filtering through animal charcoal.

The Chairman found a mixture of albumen and water in equal parts very useful in some of his philosophical work, and he thought it would offer a protection to gelatine; it would certainly enable a more perfect continuity to be established between a film of gelatine and varnish.

At a late meeting of the London Photographic Society, Mr. England presented a photographic electric lamp, very compact, and which may be used during the development of the plates. The current is formed by two bichromate elements, giving an incandescent light of two candle power. We will revert to this subject later.

At a late meeting of the Manchester Photographic Society, Mr. H. S. Starnes showed the members present a number of plates obtained by what he calls the chloro-aceto-gelatine process. The author hopes to perfect his method, and will then make it known with all the necessary details. An interesting fact is that the plates show a variety of colors, and Mr. Starnes asserts that these colors may be reproduced at will.

At the London and Provincial Association Mr. T. Waltenberg asked the members' opinion as to the probability of reducing a very dense negative, which he passed round. The circumstances connected with the development of this plate, as related by him, brought out some curious experiences. He was induced late one afternoon to take a portrait of a sitter who was leaving England that day. The light being nearly gone he used the most rapid plate he had, giving an exposure of upwards of two minutes, with a 3C Dallmeyer lens, open aperture. The plate remained in the developing solution for half an hour without any image appearing; a little more pyro was added to the developer, and the tray was then put on one side, and forgotten until some hours afterwards. When the color of the plate

prevented any image whatever from being seen, the plate was put into the hypo bath, but not fixing readily, and the plate being considered useless, it was left in the hypo until the next morning. An image was then discovered but exceedingly dense, giving rise, however, to some hope that a print might yet be obtained. The various clearing solutions were tried without effect, and the plate ultimately was left for three hours in a solution of hydrochloric acid and alum. This lowered the density somewhat, but as an exposure of three days in the printing-frame has not produced the least trace of a picture on the sensitive paper, the advice of the members was sought.

Mr. A. Cowan suggested that ferridcyanide and hypo should be tried. He, however, did not advise a prolonged immersion in this solution, as it might probably have an undesirable effect upon the film.

The Chairman suggested using a different kind of paper, stating that gelatine paper with chloride and an organic salt would, he thought, give a print in a couple of hours. The long immersion in the hydrochloric acid had aggravated the evil Mr. Waltenberg was trying to remedy, it being the treatment he (the Chairman) adopted to intensify a plate. By first converting the image into chloride of silver, then, after washing, exposing the plate to light for some time, he had obtained very good prints from thin negatives in this way. Yellow negatives, however, are not amenable to this treatment.

THE Photographic Society of Great Britain was much interested lately by a paper on "Gelatine Tissue on Cardboard," by Mr. F. Ince, who commenced by explaining that the process was invented by M. Thibout, and was one in which cardboard was substituted for paper or glass as a support for films of silver bromide in gelatine. For the purposes of experiment they had obtained samples from a commercial source, but had somewhat modified the treatment recommended by the inventor. They had employed ammonia pyro development with a small proportion of sodium sulphate added, and after developing and fixing, the film was stripped from its card-

board support, instead of drying it first and stripping it afterwards. They preferred adding a little gold chloride to the fixing-bath in order to get a blacker image, but the presence of alum with the fixing salt they deemed undesirable, so did not use it, and trusted to soaking the film in methylated spirit to counteract the stretching which took place in the course of washing. They found the films became one-fourth larger after being stripped, but this was lost again in the spirit. The films were then transferred to a sheet of ebonite to dry; they would then peel off with a smooth glass-like surface, very suitable for printing from.

The formula given by M. Thibout was then quoted, which recommended potassium carbonate as the alkali, and a larger proportion of sodium sulphite in pyrogallol development, or ferrous oxalate could be used.

It was stated that the pellicular films, when stripped, weighed twenty grains, which was a strong argument in favor of their introduction.

The Chairman, having thanked Messrs. Ince and Addenbrooke for bringing the result of their experiments before the Society, intimated that he strongly disapproved of the system of adding common alum to the fixing solution, which being, as a rule, slightly acid, caused a liberation of sulphur; it should, therefore, most decidedly be avoided. He imagined that it would be preferable to strip the film immediately after development, instead of leaving it upon its support during fixing which would shorten the process materially.

Mr. W. F. Donkin (Hon. Sec.) suggested that if the support had to be removed at any stage, it should be previous to development.

Editor's Table.

CONEY ISLAND VIEWS.—Mr. JOHN REID, Paterson, N. J., one of our "over twenty years" subscribers, has sent us some admirable views, instantaneous, of congregations of bathers at Coney Island. They are remarkable in their way. The graceful attitudes of the children, the plunging bathers, the promenaders, the beach equestrians, the always certain lovers half buried in the sand or under the shadow of a parasol, and the crowds of lookers-on, are all very realistic. An overlook view of the town brings out the big elephant so ponderously that all the other structures look dwarfed. The whole series is most successful.

Mr. S. H. HORGAN, the talented reproducer for the *Graphic*, read an interesting paper at the last meeting of the Photographic Section of the American Institute, in which photographers will find some good hints in the very line we have been urging upon them. In referring to the home of JEFFERSON DAVIS, Mr. HORGAN says, "It is likely even the latter has never been photographed." Wrong. We spent a whole day with Mr. DAVIS at his home last April, and

plied the 8 x 10 and stereo camera pretty vigorously on the veteran chief, his family, and his home, for HARPER BROS., New York. Messrs. FELLOWS & ROBERTS, 1125 Chestnut Street, Philadelphia, have the negatives and can supply copies, but not for engravings, as that copyright is owned by HARPER BROS.

Mr. H. BUTLER, Vermillion, Dakota, has favored us with three 5 x 8 winter scenes from nearly the same standpoint as the view he has made for "Our Picture," representative of the West. They are soft and pretty, and so carefully developed as to bring out all the glisten and snap of a western winter day, and are very picturesque.

A PRETTY accessory is offered this month by Mr. S. G. SHERWOOD, Buffalo, N. Y., *i. e.*, sprays and trails by the yard of imitation leaves of ivy, holly, geranium, mistletoe, rose, and "autumn tints." They always come in good to supply a good line or break a bad one, or to catch a bit of light, and so on, and should be had convenient in all studios for use in sure need. They are splendidly made.

SCOVILL'S Photographic Series, No. 17, is entitled *First Lessons in Amateur Photography*, and consists of a series of seven lectures delivered before the Senior Class of the Montclair, New Jersey, High School, by the Principal, Prof. RANDALL SPAULDING. It is admirable for its conciseness and practical plainness. Prof. SPAULDING, an active amateur himself, in our art, has the ability of "coming down" so fellow amateurs can focus on what he says and catch a sharp understanding of what he means. *Anyone* can read No. 17 with much profit.

THE proceedings of the Society of Amateur Photographers of New York come to us in pamphlet form in a neat cover, from *Anthony's Photographic Bulletin* print. This is a capital idea, for so crowded have we been recently, that it has seemed impossible for us to keep alongside of the amount of matter which comes from our splendid Society here. We shall give it our personal attention and attendance hereafter, however, as soon as we get well seated in our new office.

MR. R. K. BONINE, Tyrone, Pa., is complimented very highly by the local press for his excellent work.

EDWARD WILSON FREEMAN, a bright, manly looking boy, son of Mr. ALFRED FREEMAN, the well-known Texas photographer, sends us an excellent picture of himself made by VANDYKE, of Liverpool, England.

MESSRS. J. S. LOPEZ & Co., Havana, Cuba, publish the *Boletin Fotografico*, the only photographic magazine in the Spanish language. It comes to us regularly.

MR. J. F. RYDER, Cleveland, Ohio, has supplied us with some exquisite negatives of brides, for "Our Picture." They are marvellously good, are being printed with taste by Messrs. ROBERTS & FELLOWS, and will appear in time.

MR. ROBERT SCHRIVER, an old-time amateur of the days when the original Exchange Club existed and Mr. COLEMAN SELLERS wrote for our young magazine, has recently been elected President of the First National Bank of Cumberland, Md., to succeed his father, the late JOSEPH SCHRIVER.

WHAT THE *Photographic News* (London) says of *Mosaics*, for 1886.—"It is always a delight to send out *Mosaics*," writes WILSON in his pre-

face, and the contents are always so good that the reader might always say it is a delight to receive it. The American annual is not quite so bulky as those issued in this country, but it is fairly crowded with good and useful matter. We congratulate the compiler on his work, and hope that he may be as successful with future issues as he has been with the twenty-one volumes which he has already produced."

MR. J. TRAILL TAYLOR has again assumed the chair of Editor in Chief of the *British Journal of Photography*, and has severed his connection with the *Photographic Times*. He no doubt met a hearty welcome at his old quarters in Covent Garden.

THE corner-stone of the annex to the Cramer Dry-Plate Works, in St. Louis, will contain among other treasures, copies of all the photographic magazines of America. Our word must be taken for this, for the contents of the corner-stone will *not* be shown at the next convention. There will be all else St. Louis can get together, however.

WILSON'S *Photographics* continues to sell remarkably. Twice during the first two weeks of January the SCOVILL MANUFACTURING COMPANY ordered twenty-five copies, and the other dealers and booksellers sell it largely. Now is the season for reading.

MR. C. W. CANFIELD gave us the pleasure the other day of looking over Album No. 6 of the Photographic Exchange Club. It contains many gems of studies from various quarters, and inter-leaves, on which the various members of the Club are expected to note their criticisms of the pictures, and then pass on the album to the next. A good way of learning much.

MESSRS. E. & H. T. ANTHONY & Co. have supplied us with a "common sense binder" for our *Bulletin* this year, which we find very convenient.

A Touching Tale is the author's feeling title of a highly sensational, photographically illustrated, utterly affecting, *j' en se quois* fresh book of original design and finish, and remarkable for its want of adjectives and general boil-down-ativeness. Its illustrations are from 8 x 10 Passavant quick plates, and the letter press consists of two brief lines. We reproduce the whole book herewith (except the illustrations), as follows: 1. "I Broke my Horse;" 2. "Papa

Fix Him." The first scene represents truthful little four year old George Washington Lowden and his "little hatchet," with the head of his hobby horse on one side, the fallen steed's body on his left, and a piece of the remains in his fist, over which he weeps. No. 2 is the happier side of the picture, and must be imagined. The principal accessory in both illustrations is a grindstone. We suppose G. W. will take a hack at that next. The author is Mr. W. H. LOWDEN, of the San Francisco Amateur Society, the whole thing is a capital get-up, and does credit to all concerned.

ALL the way from sunny Italy comes a splendid full-length cabinet portrait of our old friend and *confrère*, Signor CAV. OTTAVIO BARATTI. A splendid likeness, too. It came tied with a scarlet ribbon, with "Happy New Year" well inscribed thereon. Oh, to live in Italy! Who would not wear a sunshiny face there?

MESSRS. A. B. PAINE & Co., Fort Scott, Kan. have sent a very neat catalogue, handsomely covered, of their photographic goods, frames, mouldings, etc. They are already pushing, a handsome business in this new quarter. They also publish a *Bureau of Information*. Their catalogue is well printed.

MR. JAMES W. GILLIS, Rochester, New York, manufacturer of frames and mouldings, has sent us "The Daily Reminder," for 1886, a novel and very beautifully designed calendar.

MR. W. H. ALLEN, of ALLEN BROS., Detroit, Mich., favored us with a call recently. He was in good spirits, and said they could not get enough Suter Lenses of all sizes to supply the demand.

MR. G. G. ROCKWOOD could fire a pistol ball diagonally from his studio window into our office window, but instead of that he called, and was real nice about it too.

THE EASTMAN DRY-PLATE AND FILM COMPANY's new advertisement should be read carefully. Few manufacturers gather in such a wreath of laurels in such a short time.

THE new Argentic Dry Plate (green label) is now for sale by all the dealers. Give us of your experience with them. The developer given in our last issue should read "No. 1," four drachms instead of two drachms, as we gave it. The manufacturers find four drachms best.

A NEW FIRM ON AN OLD CORNER-STONE.—MESSRS. F. HENDRICKS & Co., 4 East Fayette Street, Syracuse, N. Y., is the new firm composed of that well-known dealer, F. HENDRICKS, Esq., and as his partners, MESSRS. IRVING A. SAVAGE, EARL THOMPSON, and FRED. E. COLWELL, long-time employés of their principal. Mr. SAVAGE has charge of the wholesale department, Mr. THOMPSON is in charge of the retail department, which position he has so long filled, and Mr. COLWELL, well and favorably known, will continue as travelling salesman soliciting your orders for the PHILADELPHIA PHOTOGRAPHER and orders for books. We wish the new firm a continuance of the liberal patronage which has so long favored Mr. HENDRICKS.

A FRAUD.—Two or three parties have written us lately as follows: "Will you be so kind as to inform us if Mr. K. H. MEYER, a German who was in your employ at the Exposition at New Orleans, can make a good dry plate. He claims to have made plates there, and we thought you would know what kind of a plate he could make. Any information will be thankfully received and appreciated." We are sorry to pronounce Mr. "K. H. MEYER," whoever he may be, an unmitigated fraud. We do not know him, and neither did *anyone* manufacture dry plates for us at New Orleans. The plates used at the Exposition were made by CRAMER, INGLIS, and PASSAVANT principally. We had no time to manufacture or to listen to frauds.

ABOUT our removal to New York one of our subscribers writes: "It does not seem like writing to the same man to have to address you at New York, but the journal presents a familiar face and has reached me twice since the New Year, and the searching, witch-like expression of 'Mother Shipton' makes a 'lag-behind' shake in his boots. So here's your five dollars, Mr. WILSON, with the hope that the next picture will smile on
M. C. RAGSDALE."

SAN ANGELO, TEXAS.

The fact is, we have always been closely identified with New York, having always done the bulk of our business here. We have simply changed by staying here where we could do still better for our subscribers.

LITERARY NOTES.—MR. EDWARD L. WILSON (1125 Chestnut Street) has just issued his *Photographic Mosaics* for 1886, the twenty-second number of a series which has steadily increased in value, and which to-day appeals, and deserves to appeal, to a larger audience than ever before.
—*Philadelphia Press*.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



HO FOR THE LATEST CRAZE!

TOBOGGANNING.

Seavey built the first tobogganning slide in New York, for the show window of R. H. Macy & Co.'s great store, corner Sixth Avenue and Fourteenth Street, and which attracted thousands of spectators every day during the holiday season. He is ready now to supply photographers with a complete outfit, viz;

1 Imitation Toboggan.

1 Toboggan Slide.

1 Toboggan Background.

Correspondence solicited. Samples sent. Address.

LAFAYETTE W. SEAVEY,

Studio, 216 E. 9th St.,
New York.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

WILLIS & CLEMENTS,

25 NORTH SEVENTH ST., PHILADELPHIA, PA.

BUCHANAN, SMEDLEY & BROMLEY,

General Agents for the sale of materials.

ROCKWOOD SOLAR PRINTING CO.

17 Union Square, New York.

TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, we are not at all dependent on the weather

GEORGE H. ROCKWOOD,

Business Manager.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers 392 Bowery, or 487 Eighth Avenue.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises. Address

LEON VAN LOO,

148 W. Fourth Street,
Cincinnati, O.

A good opportunity to buy a first-class leading gallery cheap. Only first-class gallery within twenty miles; one of the best locations in central New York. Does a business to over 15,000 inhabitants. Splendid chance for a young married man. For further particulars, those meaning business address

PHOTO.,

Booneville,
New York.

CARD TO THE PUBLIC.

THE undersigned, referring to the circular from Mr. Edward L. Wilson, published herewith, ask your attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at the above address,

With the most extensive and costly apparatus ever employed in such work, a splendidly accoutred studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

For amateurs we instruct in the art, develop plates, print, and finish.

For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France, and England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

The Centennial Exhibition, 1876, the New

Orleans Exposition, 1884-85, a fine and new series of "The Sunny South," and a large miscellaneous collection of comics, portraits and views.

Foreign and American slides supplied for Mr. Wilson's celebrated *Lantern Journeys*, described in volumes 1, 2, and 3.

Agents for Wilson's *Lantern Journeys*, and other publications.

Stereoscopic and Imperial (8 x 10) views of the above-named subjects promptly supplied.

Soliciting your patronage, and believing we can maintain the world-wide reputation of our predecessor, we are Truly yours,

ROBERTS & FELLOWS,
1125 Chestnut Street.

PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employes, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON.

PHILADELPHIA, Jan. 1, 1886.

M. WERNER,

PORTRAIT ARTIST,

No. 102 N. TENTH STREET, PHILADELPHIA.

Photographs finished in crayon, India ink, water colors, and pastel, in all sizes, in the very best styles, and at moderate prices.

Solar Prints and Enlargements Furnished.

PORTRAITS IN CRAYON.

The new book by E. Long, on the art of making portraits in crayon on solar enlargements, covers the entire ground, and is sold for the low price of fifty cents. For sale by

EDWARD L. WILSON,
Philadelphia.

CAMERA, FIELD, AND BOOK.

A MAGAZINE DEVOTED TO OUT-AND-INDOOR LITERATURE AND THE CAMERA.

No amateur can afford to do without it. Specimen copy free. One year, \$1.00; 6 months, 50 cents; three months, 25 cents. Send silver or currency by registered letter at our expense. Address **CAMERA, FIELD, AND BOOK,** Bristolville, Ohio.

P. S.—We will send the *photo numbers* of *Camera, Field and Book*, for one year to anyone who will contribute an original item that shall be of value to amateur photographers. Or we will send the same to professional or amateur photographers, for one year, who will send us choice specimens of their work. Send such correspondence and specimens by registered mail.

S & M.

CAUTION.—The genuine and original S & M EXTRA BRILLIANT PAPER always has the *water mark* S & M in every sheet.

A good deal of paper is sold with merely the stamp in the corner. This may be good, and it may not, according to what paper is used by the parties who want to work it off by putting on a stamp that has a reputation.

Look through the paper for the water mark.

E. & H. T. ANTHONY & Co.

AUSTRALIA.

OPERATOR.—Wanted undoubted first-class operator, capable of producing high-class work and throwing art into a negative, for a leading gallery in Sydney, New South Wales. Applicants must be well up in wet and dry plates and the work of the dark-room, and must have been engaged in a leading New York or other good gallery in the States. Leaning towards man capable of retouching. Outward passage paid from San Francisco. Good salary to a competent man; applicants to state age, and give full particulars as to qualifications, and where experience gained. Applications, together with specimens of unmounted prints of all classes of the applicant's own work, along with photograph of self, to be sent under cover to "Australia," care of E. L. Wilson, Esq., 1125 Chestnut Street, Philadelphia, from whom further particulars may be obtained. Only men whose character will stand the test of inquiry will be dealt with; waste of time for second-rate men to apply.

WILSON'S PHOTOGRAPHICS, fifth thousand, a splendid present.

FOR SALE.—One of the most popular and prosperous galleries on Broadway, New York. Strictly first-class. None but the appreciative need apply. Address **M. A. E.,**

care E. L. WILSON,
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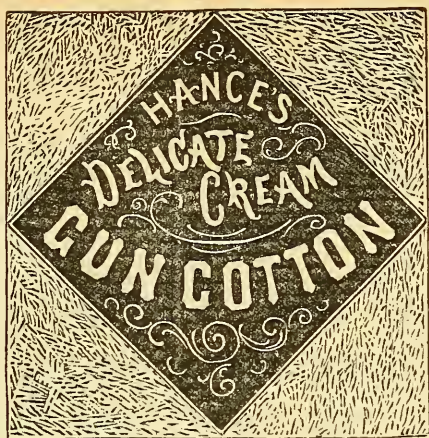
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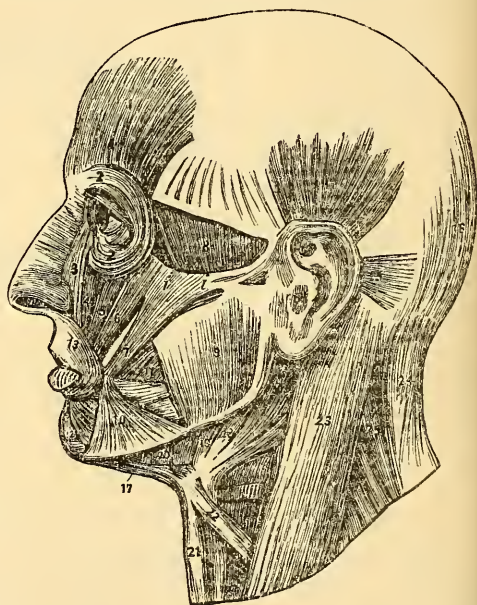
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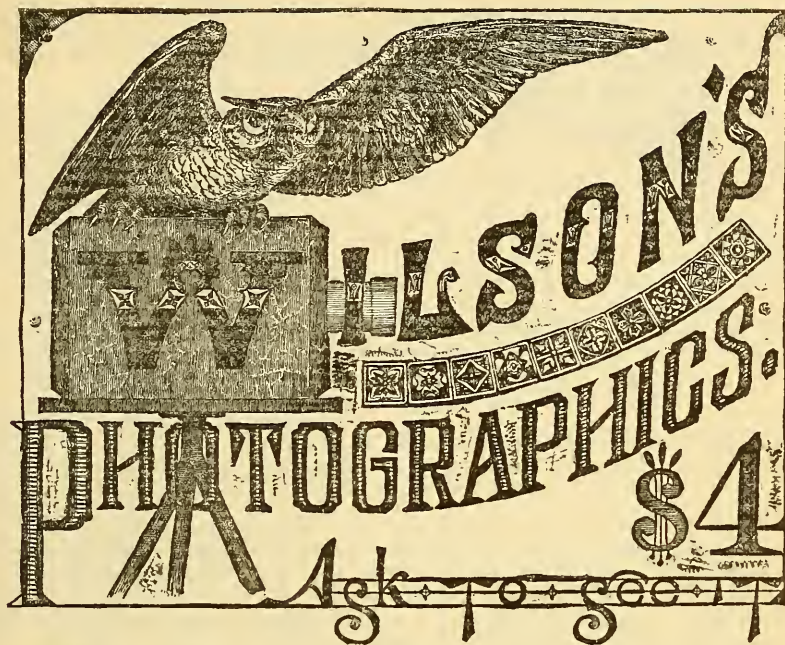
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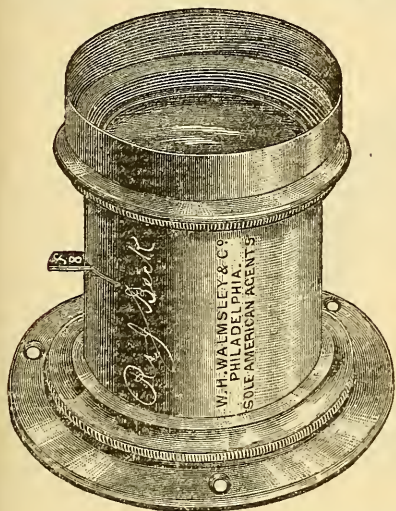
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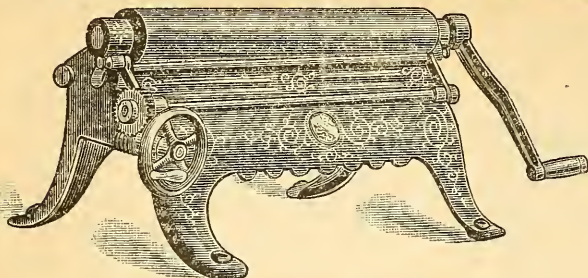
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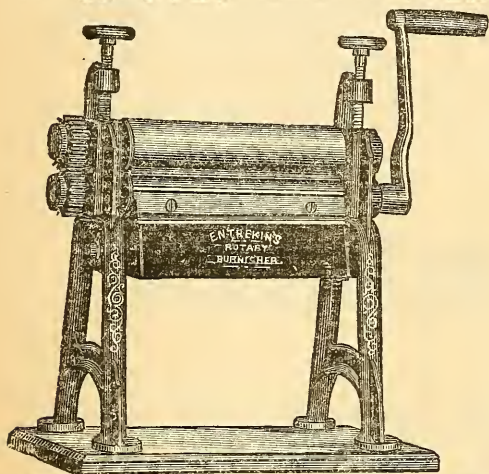
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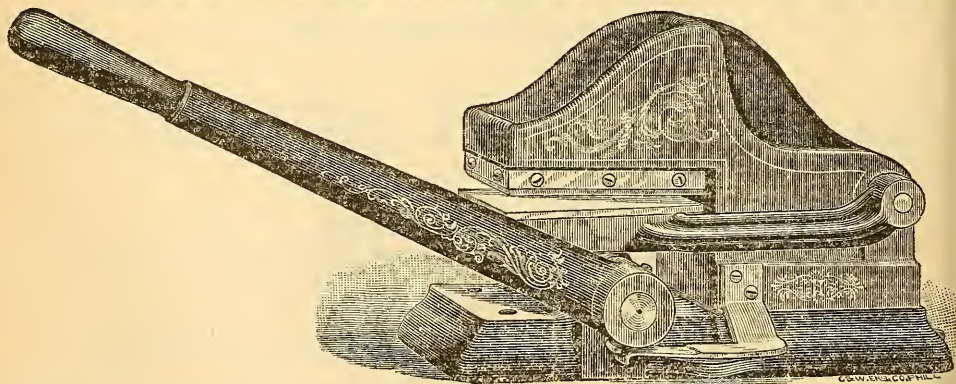
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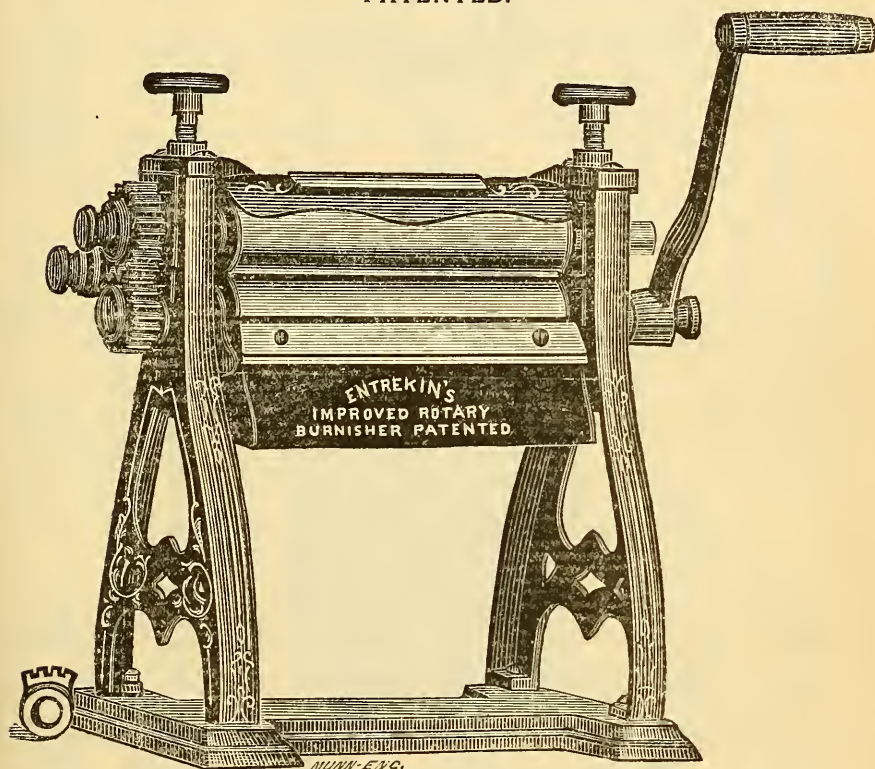
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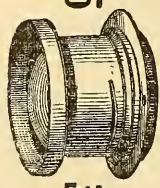
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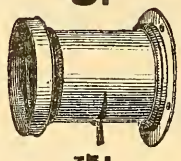
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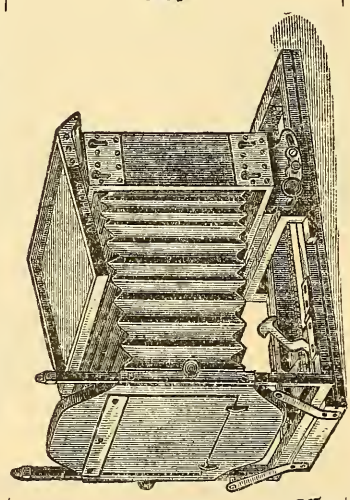


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Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XXIII.

FEBRUARY 20, 1886.

No. 268.

COMPOSITION.

BY XANTHUS SMITH.

PART II.—LANDSCAPE.

THE sphere of the photographer is more limited in landscape composition than it is in the grouping of figures or still-life objects, for, as he cannot move mountains, transplant trees, and tumble rocks about, he must take scenes in nature as he finds them, only being able to show his taste and knowledge in choosing those combinations that are particularly agreeable, and selecting a point of sight that will make the most harmonious arrangements. The painter is more fortunate than the photographer in having the power to make the best of a scene by omitting that which is unessential and bringing into prominence more important features. It often happens that the proper point of sight for a view is rendered entirely impracticable to the photographer on account of the presence of some intervening straggling objects, which do not necessarily add to the truth of the scene; perhaps bushes of a year's growth, which will be swept away by the following season, and which the painter would leave out altogether, whilst the photographer is driven to a point too high or too much to the right or left in order to avoid such obstructing and marring objects. The painter can also combine the most striking and characteristic features to be found about him, thus giving

in one view a full and complete impression. In very simple scenes, such as those upon a sandy seashore or upon a moor, the addition of an interesting sky would be of great importance, and any object to give interest in the foreground. On the beach, for instance, if we can get part of a wreck, or on the heath, some gnarled old scrub of a tree that has weathered many a storm, we have objects for thought to build upon. With an approaching storm and some figures or cattle hurrying before it, we at once get an interesting picture out of a most meagre subject. What would there be in such scenes taken upon a cloudless day, and without picturesque accessories, though all the details in them might be ever so truthfully rendered?

As we advance to scenes fuller of interesting natural objects, we have less need of incident to give interest. Distant mountains, with a river or lake, fine trees and rocks, go to make up the sum of a beau ideal landscape, and when we can get the mountains and water near the centre, with a fine large group of trees on one side and a lesser group of trees or rocks upon the opposite, we have the most complete arrangement. And it is not necessary that the features should be large or the scenery on a very grand scale, for where there are no figures or buildings by which to measure the comparative size, scenes composed of smaller features, well disposed, make just as good pictures, and to my fancy

sometimes better, because in the case of the large scenery, there being generally no means of measuring, one is not impressed with the grandeur, as he would be in the presence of the scene itself. And with small features, provided they are picturesque, there is more rural poetic sentiment, more variety, and the proper point for the forming of an agreeable picture more easily obtained.

That quality which is termed picturesqueness by artists, is a paramount one in landscape photography. It implies an absence, as far as possible, of flat masses, long continued unbroken lines, stiff curves forming parts of circles, parallel lines and lines inter-

of the works of these men; and fortunately for the photographer, it need not be of the originals, for as he has nothing to do with the coloring, or what is termed the handling, by painters, if he can see good engravings or photographs from them they will answer his purpose just as well. It is true that these painters often took great liberties with views, and in order to carry out their bent so changed not only the proportions of important objects, but their true relative position with regard to each other, as to make the picture almost unrecognizable as a view of the place it was intended to represent; but the photographer need never have the

FIG 1.



sected by other lines cutting them at right angles, all of which go to destroy that harmony of effect which is agreeable to the cultivated eye. While there must be a certain uniformity or keeping in a scene, there should at the same time be the utmost variety and intricacy. No landscape painters have understood so well and entered so thoroughly into the picturesque, as the English painters of the beginning of the present century, Turner, Starfield, Harding, and Prout standing preëminent; and no better training can be had for the mind and eye of any one desirous of selecting and making good landscape views than a careful study

slightest fear of falling into error in this direction, as his views must necessarily be always too realistic and matter of fact, and exaggeration of the picturesque, in examples, can do him no harm. Besides, such study will be a great aid to him in making his selections, first, of the kind of objects or scenes most worthy of his attention; and, secondly, of the most proper point of view from which to seize all the salient points and to take them in the most harmonious and agreeable manner.

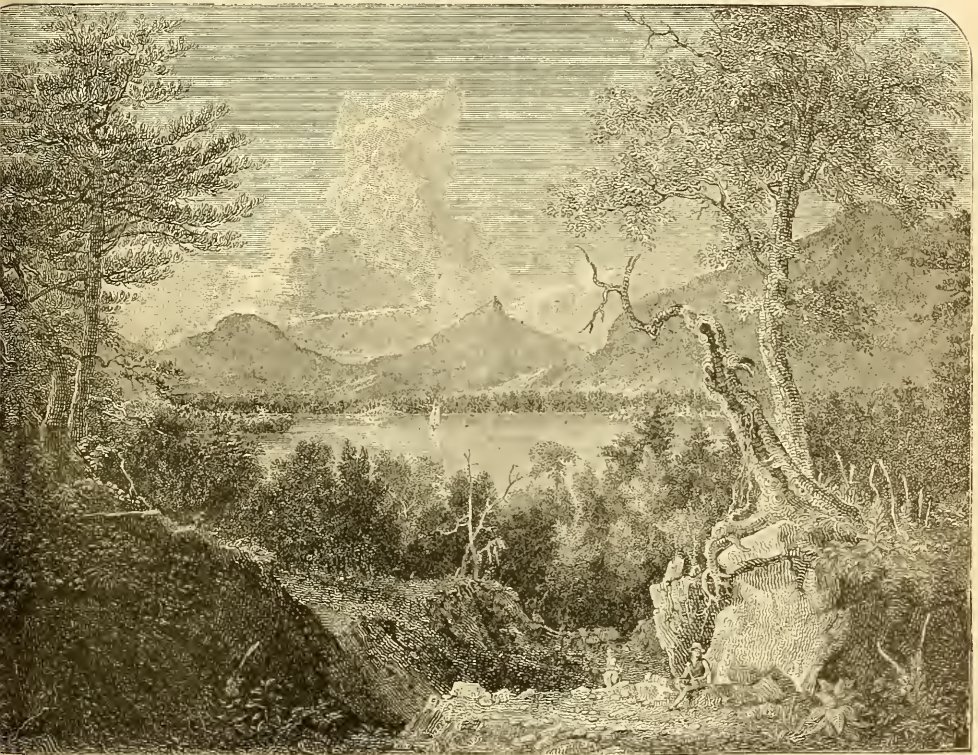
I will give as a first example of landscape, of the grand and extended kind, an outline of a picture of Loch Ard, by Robson. The

mountain is of a grand and most picturesque form, rising, as it does, gradually, with a continuous line on the left, broken somewhat at the peak, then descending abruptly a considerable distance on the right to a more level termination. The structure of the nearer portion is a reverse of the further, which gives variety, and the long lines of ascent and descent whilst they are sufficiently broken not to be stiff, at the same time have that continuity which gives gran-

and, finally, the cows and stones in the immediate foreground and rising mass of cloud add to the fulness and completeness by carrying around the circuit of the composition.

Figure 2 is after Thomas Cole, the father of American landscape painting, and an artist whose works were remarkable for poetry, dignity, and sentiment. I give it because it is an excellent type of the fine mountain landscape scenery which abounds in the old States. It represents untamed

FIG. 2.



deur. The rocky cliff on the right forms a fine mass, and the foliage on the upper portion varies its outline from that of the mountain and contrasts the angular forms of the rocks. The base of the nearer mountains and cliff on the lake form an unbroken line, and one such line coming well into a picture is considered to give firmness. The circular sweep of the edge of the lake adds to the beauty by giving grace and variety,

nature. There is no appearance of the axe or the plough having begun their work. The features are grand and rugged. Now, while this picture has the appearance of being a transcript of nature, to an ordinary observer, one trained in art will see at once in it the work of the mind of a painter. A high horizon has been chosen, which gives dignity and extent to the scene and enables the introduction of a number of interesting pas-

sages from the foreground to the distance, which gives extent and leads the eye nicely into the work. The mountains are so broken as to be very picturesque. Then see the beauty of a composition in which the choice distant features of the landscape are seen through a sort of side framing formed by the foreground trees. Who that is an admirer of nature, has not been charmed by looking at scenes through such natural openings or vistas? And in this composition the artist has shown his skill in so varying the features of the sides of his picture, that while there is a certain equality and uniformity

portance; and again see the skill in throwing the fine natural passage of the oak, dead tree, and rocks into high light, so as to bring out fully all their picturesque beauty; and, finally, see how all is completed by the introduction of the grand, towering cumulus clouds. I think that no better basis of study could be used for mountain landscape scenery.

For counter examples I go again to the catalogue of the Salon, because Paris is now the fountain-head of art in the eyes of Americans. It is there that we flock to study and to receive our impressions. These

FIG. 3.



about them, they are so entirely different as not to be in the slightest degree monotonous or to war with each other. This he has accomplished by making the character of his trees entirely different—a close pine on the left and the more open oak on the right. And see how the stem of the dead tree, setting vigorously forward as it does, adds to the wild picturesque sentiment of the scene. The passage of quiet, deep shadow down the left-hand side of the picture is of great im-

portance; and again see the skill in throwing the fine natural passage of the oak, dead tree, and rocks into high light, so as to bring out fully all their picturesque beauty. They not only answer my purpose in illustrating bad art, but show how widely different the French taste in landscape art is, from the best English, and from the American up to within a few years ago.

See what a strange conglomeration of

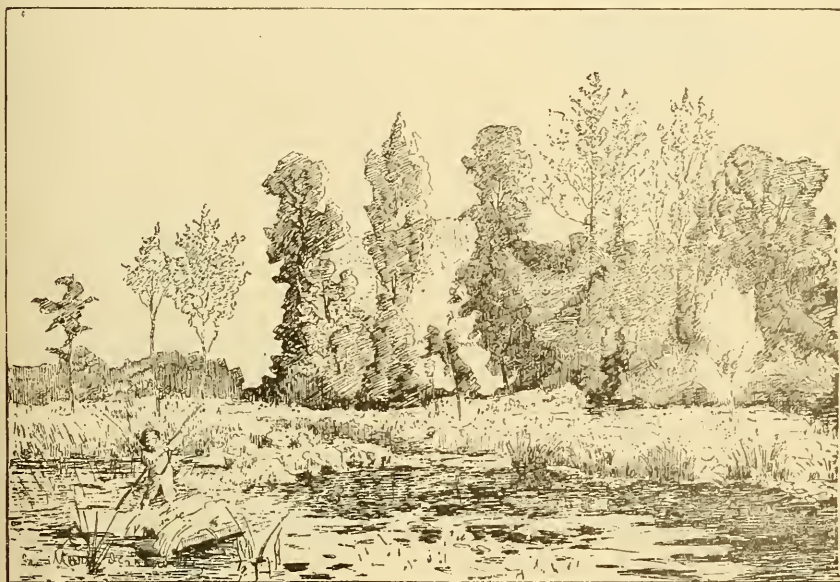
grotesque forms we have in Figure 3—what an indiscriminate scattering from end to end of ill-shapen patches of light and dark. And in Figure 4, from the title of which, "An Autumn Morning on the Banks of the great Lake at Cernay," we should be led to expect something grand and imposing; see how exceedingly scattering is the composition, how indifferent the features chosen. It seems remarkable that such should be the case, because every Frenchman should be sufficiently proud of the well-deserved fame of Claude Lorraine, to be at least not entirely oblivious to his simple, dignified, classical compositions. And then, too, see

DEVELOPMENT IN TWO SOLUTIONS.

BY D. EACHRACH, JR.

IN your issue of January 16th, you have copied an article by M. Audre on the above subject, without comment, which, by inference, would lead one to suppose that he was the originator of the method. While the subject is not one of paramount importance, it is yet due to yourself, as well as to the writer, to mention that I made the first publication of the method in your journal in June, 1884, having used it for some months previous in our studio. I claim,

FIG. 4.



what magnificent natural scenery the French landscape painters have to draw from, not only upon the Swiss frontier and Spanish, but the coast bordering upon the Mediterranean. Let us endeavor to do better in our own country, and by searching out and studying the excellent things that have been done before us, and going amongst our choicest scenery and, applying what we have learned, see if we cannot continue to advance in excellence.

(To be continued.)

with justice, I think, if there is any credit to be derived from it, that this was the first publication ever made, and that the method originated with myself. Though but an humble worker in the ranks, I have given my mite toward the advancement of the art-science, and have a just pride in being credited with what is due to me. I am, perhaps, over-punctilious in this matter, because an attempt has been made but recently by an envious rival, in a personal attack, to deprive me of the credit of my

method of printing upon *prepared canvas* (not the plain material, which is much more easily treated), and which also applies to other difficult surfaces. This method I published in 1869, and it was widely copied by European journals; and I know that *no similar method was ever before published*, though there were dozens of processes having the same object in view, none of which ever proved as practical as the one mentioned.

But the main object of this communication is to call attention to an error and an oversight by M. Audre in his publication. If the reader will mix his pyro solution according to my modified formula, published in the *Mosaics* of this year, he will be able to use it for at least a month without deterioration, and not merely a day or two, as M. Audre suggests. Should the latter's method be used in warm weather with some brands of plates, the film will be found to soften and yield a rough image. For this reason I add *sulphate of soda* to my solution, which acts as an astringent and also as a restrainer, and prevents all trouble in hot weather. I have also discarded the use of a bath-holder, and use a flat dish, which allows the use of less solution. It will be found best not to use this method for plates over 11 x 14 inches. We use the pyro solution up in mixing developer for larger plates, and then replenish the same with fresh pyro, and thus always have a portion of the solution fresh, which we have found a slight improvement. At the same time, no one need fear to use the solution a month or longer. Not only can a large batch of negatives be developed more uniformly, more rapidly, and with clearer shadows than by the ordinary method of mixing the solutions, but I have no hesitation in saying that *at least two-thirds, and probably three-fourths, of the pyro is saved* as compared with the usual method.

In conclusion, I wish by no means to have it inferred that M. Audre copied my method, as it is no new thing for two or more men to work in the same direction independent of each other, but as the priority of my publication is a year, at least, the fact ought to be known on this side of the ocean, even if not taken into account on the other. The strangest thing of all is, that only when

published in a foreign journal the attention is paid to it which this innovation really deserves.

I wish you success in your new enterprise.
BALTIMORE, January 27, 1886.

PHOTOGRAPHICALLY ILLUSTRATED BOOKS.

THE wonderful facilities for illustration supplied to publishers and authors by the various processes which have grown out of photography, have caused our art to be used more and more each year in book illustration, and, in fact, in the perfect reproduction, *fac similes*, of old and rare pictorial books, in color, as well as in black and white. Some of the examples done by the Photogravure Company, for example, are wonderfully fine. It is our intention to call attention to this matter frequently in the future, for in *this* direction we believe the usefulness of photography is very largely to grow. Certainly nothing can do the work better. We are at present drawn to this line of thought by a very handsome work which lies before us, alluded to in our last number, and which is elaborately and handsomely illustrated by photographic processes. The work is

CHOSAN, THE LAND OF THE MORNING CALM.

A sketch of Korea, by Percival Lowell. Boston: Ticknor & Co., publishers. Price, \$5.

There are twenty-five original photographs from the author's own 5 x 8 dry plates, the first ever made in Korea, besides numerous photo. engravings, some of which we reproduce by courtesy of the publishers.

Mr. Lowell has proven himself an adept, though he may be an amateur. His object, his conception for his photographs, was to illustrate the people, how they live, and the places and country they live in, and he has most successfully carried it out, so far as such a limited number of views will allow.

His street groups are particularly attractive, and his views of Korean homes most curious.

A nicer arrangement of accessories here and there and a little more care in grouping could have been followed, but those who have used the camera in such emergent

work, among a people whom one cannot make understand, and who look upon having a picture made as one of the greatest jokes in the world, know how impossible it is to get the very choicest effects. These are splendidly done, therefore.

"The Pagoda," of seven stories high in air, with the group of squatty buildings beyond, and then, still beyond, the ranges of high, pointed peaks is a real picture of the place and of the land.

"The Apothecary's Shop" is well managed; and "The Fragrant Iris," a woods scene, with a pretty native girl on horseback in the foreground, is also a fine effect.

The gem of the collection to our mind, however, both for poetic feeling and technical excellence, is the view of "The River Han." A clear and placid river, with mountain peaks in the far distance, and in the foreground some thin cakes of "March" floating ice. It is lovely and soft, and certainly a view in the "morning calm."



The photo. engravings are very finely done. "The Chinese general and the unfortunate imp," illustrates a scene in Korean

life which grows out from the belief of the people in demons.

Though they believe in the existence of such imps, they also believe in trying to eradicate them, as this excellent picture demonstrates.

The Koreans are great lovers of landscape scenery. When amateur photography is introduced there, it will become a wild diversion. Wealth awaits the enterprising apparatus maker who first sends the King a camera.

The next soft place in the heart of the Koreans is for the hat.

From the ordinary everyday hat



to the mitred hat, through which the cue must show, the varieties are innumerable.



Altogether, Mr. Lowell has given us a most enjoyable book of travel, and the publishers an exquisite example of book-making.

Photographers will be much interested in these curious and rare views.

WHERE ART BEGINS.*

BY HUME NISBET.

STANDING, as I do at present, before the partly opened gateway to that land of wonders—photographic discovery—I would like to begin my remarks, before looking through the narrow aperture, with a glance backward—say twenty years—to what the science and art were then, and what they have since become, before we surmise what it—photography—may be twenty years hereafter.

I mean to take up photography only where it joins hands with my own work—painting—in the broad sense of the word, which, I may safely assert, is taking it nearly all round.

When I look back twenty years to the time that I first began to mix with the professors of the sun-craft—"Brothers of the Light," to use an occult term—and compare the work of those days with the results of this day, and think upon all it may yet be, it is with a feeling of profound astonishment, not unmixed with admiring envy, that I regard the young scientist beginning a career so filled with possibilities and future discoveries. It seems as if I, the painter, walked upon a highway tramped down by countless travellers, leading to an end definite and unavoidable, while he has before him only a little distance marked out, with a vast country to explore as his mind and genius may best determine.

About twenty years ago my father took it into his head to begin a photographic business. He did not know much about it himself, although he had a good knowledge of chemistry; but he was an enthusiast in experiments and a credulous believer in the honesty of mankind. So, through the advice of a friend, he built a glass-house, bought some cameras and chemicals (it was the wet-plate days), laid in a stock of handsomely designed mounts, etc., and advertised for an operator.

I daresay a number of gentlemen present have gone through a similar experience, thinking, as he did, that this was about the whole required to start a future flourishing

business, and that the operators, like the cameras, would be equally easy to procure, provided the money was there to pay for them.

He bought cameras and hired operators. I think he got through about a dozen of the one and about half a hundred of the other, before he woke up to the knowledge that something was required before the business could be built upon a firm basis or the public satisfied with the efforts made to please them.

In those days backgrounds and accessories were not greatly considered as the means toward an artistic end. One plain background and one a little complicated were all that the operator considered needful, with a carved chair, or fluted pilaster, and so the multitude were turned out with a set, fixed stare, full front, bolt upright. If male, a lenient photographer might permit one leg to cross the other by way of ease. The female portion generally sat with hands meekly crossed over the lap and a curtain falling gracefully on one side, like those heroic portraits of the times of Sir Benjamin West.

When I had painted the fancy background—a room with a bay-window looking out, window partly open, revealing an Italian lake with a "palace lifting to eternal summer" its (half concealed) "marble walls"—and got a house painter to do the plain subject, we were ready to begin work, turn out your Dick and Harry by the rose-tinted dozen, all as visitors to that wire-work painted Italian lake. I had not then learned the value of suggestive mystery, nor did I do justice to the imagination of our public. I considered then that a fact could not be too plainly told—a mistake often committed by ardent youth.

We changed our operators rapidly. Some had been old positive men, who had no sympathy with the negative system, therefore, out of principle, spoilt all the negatives they took; some had a weakness for ardent spirits and strong tobacco while at work, and, in consequence, made mistakes with their solutions; others, again, developed such an extraordinary appetite for gold and silver, that the most profitable business in the world could never have supplied the baths they

* Read before the London and Provincial Photographic Association.

required to go on with. We tried a number of wandering workers, who, having pawned their own stock-in-trade, came with arms out at elbow, and stayed with us just long enough to do away with the most of our stock as well as feebly growing trade; yet the old man held out, tried another and another, and sunk a lot of money in that glass-house, before he eventually came to the conclusion that it would be much more satisfactory and less expensive to devote it entirely to plants and the growing of grapevines.

While those experiments were going on, I was picking up some stray crumbs of knowledge. My artistic instincts and a fair education made me revolt against that instrument of torture, the head-rest, and try to pose the sitters a little more naturally than the regimental rule so rigidly adhered to. Of course, the time required for the sitter to remain steady in those wet-plate days necessitated a rest of some sort, so, considering all things, I suppose they took portraits then pretty respectable; one point to be specially regarded with regret being, that the young photographer had more chance of learning the details of his trade thoroughly, than he has now with all the facilities for ease and comfort in the prepared dry-plate processes, for I contend that in all trades and professions a man to be thorough ought to learn the way to prepare his materials from the very foundation, as well as to be able to work with them after they are ready for his hand, as the old masters did with their canvases and colors, and the old positive men with their collodion and other chemicals. We must look back with the same admiration on these men fighting so manfully with difficulties, now all smoothed away by our instantaneous plate manufacturers, as a modern tourist, crossing the Atlantic (saloon fashion), may recall the same passage made by Christopher Columbus in his fishing boat of a Spanish galley.

Of the many experimentalists migrating through that glass-house during their earthly pilgrimages and its photographic existence, I can recall two who stand out most prominently; one an Italian pantomimist and Jack-of-all-trades, who did the most damage in the shortest space of time, and the other

a German atheistic disciple of Voltaire, scouter of Providence, and blind believer in chance, who stayed the longest and taught me, as the serpent of old did Mother Eve, the greatest amount of good and evil.

The pantomimist brought with him a wife and large family, squatted upon the premises *en masse*, and cleared it out as completely as a cloud of locusts are said to demolish the track of country they settle upon; he was an ingratiating man, who could do almost anything from pitch-and-toss down to swallowing a camera, stand and all, and his fascinating family were equally handy in the art of stowing away. If the grocer's and butcher's bills had not, after their hasty departure, come in to be settled by my father, I would have been convinced that they devoured nitrate of silver for their dinner, aiding the digestion by a dessert of chloride of gold, so much of those two articles were consumed during that brief visit to the paternal roof of these interesting and noble refugees.

The little German could work, but objected strongly to my introducing any novelties in the way of pose or accessories. He had been brought up to regard a fluted pilaster as a necessity of life, likewise a cushioned, carved easy chair with the marble palace, whether the sitter was a clerk or a clod-hopper; there they stood, full front, fixed at attention, with an excruciating and ghastly grin, distorting faces flooded with light, the pilaster on the right, easy chair on the left, and the smiling lake with its startling detail all in the foreground, and brought out regardless of consistency or sentiment. I used to argue the point, strive to surround a sitter with the accessories which his daily occupations entitled him to command, but without avail; he would turn me off with a piece of Voltarian philosophy, or, what was harder to endure, a smack on the ear, the artist and the photographer standing then as distinctly apart as now they are so closely united.

But, with all his faults he was a good chemist and a reader of books; had he been less of an investigator he might have been more of an artist; but, so long as he could overcome the chemical changes in his baths and emulsions, conquer fogs and frillings,

and produce a clear, undeniable likeness, he rested on his laurels, saved his money, and blasphemed creation. Twice a year he took a week's leave of absence, during which time I posed sitters to my entire satisfaction, and ruined plates innumerable. These holidays he invariably devoted to the racecourse; ridiculing a God, he worshipped Dame Fortune, put his entire half-year's savings, without fail, on the wrong horse, got kicked about by the welchers, and returned to his duty ornamented with a pair of blackened eyes and bruised frontispiece, a sadder but never a wiser man; his faith in his particular crotchets being as pathetic and unbounded as his utter disbelief in an eternal state.

In those early days photographers did not trouble themselves much about light and shadow—*i. e.*, the subtleties and refinements of light and shadow; to me, an artist, the sight of a good daguerrotype with its silver lustre, soft light, and indefinite masses of shadow, is infinitely superior to the crude attempts at *carte* printing in its early stages. The finest studio work of to-day harks back to those chance effects of imperfect knowledge, or time-workings, as the great painter strives to cultivate the freshness of early attempts, or the mellowing upon the canvases of the old painters. I have seen effects hit by chance from young pupils, who regarded them as failures, through want of experience, which I would give a lot to have been able to imitate; and so, the longer a man lives, thinks, and works, the more eagerly he watches immature attempts, and the more he can learn from seeming failures; for when a man is struggling with all his might to get at an object, he is wrestling with an angel, as Jacob did, and though he may be lamed, as Jacob was lamed, yet the failure is so illuminated with a divine light, that success may be read between the lines. He thinks he has failed and that the ground is strewn only with the shattered pieces of his frail armor, whereas it is covered with the jewels which he has torn from his mighty antagonist; as he lies back, panting and oblivious from exhaustion, he can see nothing of all this, but to the onlooker it seems a triumph, to the after-gleaners it means success.

You all know from experience how photography has grown, what grand strides it has made year after year, and how it is marching on: first a shadow on a metal plate; an impression upon glass, when all art attempted was a little colored powder to give it a life-like look; a staring print upon paper, where art sometimes stepped in and painted over. Then the modelling upon the negative, where art must reign supreme, where anatomy must be studied, and mind dominate, and which, so far as I can see, has no ending in the way of possibilities. There is no need for a man to use paints and canvases to write artist, in the fullest sense of the term, after his name, if he is master of the art of manipulating a negative; here art begins, after the posing, and has a delicate and very great mission to fulfil.

When I think upon the vastness of this field, where an artist may wander at will, and how little really has yet been done in comparison to what may be done, I could almost wish that this had been my lot in life rather than what it is. Ambition! why a man may have the desires of a Napoleon, and yet find relief for them all in the great art of remodelling, but of that anon.

POSING.

It is a very difficult matter to take a point in the career of a photograph—from the moment the sitter enters the studio until the *carte* is packed up—where art does not occupy the principal share. To begin when the sitter enters, and the artist looks upon him or her, as the case may be, as a subject upon which to expend all his skill, imagination, and brain force; in somewhat the same sense as a subject painter regards his model, so the photographic artist ought to regard his sitter, yet in somewhat of a reverse sense also, for whereas the painter chooses his model to his subject, and therefore has the easiest task, that of working out a preconceived idea, the photographic artist must be an impromptu man—he must improvise his subject to his sitter. To a true artist, I can understand the tremendous strain upon his reflective and imaginative faculties, to have to vary and strike subjects for every sitter who enters, and yet this is

his imperative duty if he is an enthusiast in his art, which all great photographers must be.

It has amused me often to hear painters attempt to sneer at the photographer who called himself an artist. Painters who are content with one or two subject ideas for twelve months, resting with an air of infinite superiority upon this painfully conceived and, in many cases, rather stale idea, and gazing down from the stucco pedestal of their own arrogance upon the photographic artist with his ten and often twenty ideas per day. Of course, I understand that they, the single-idea men, do this through ignorance and want of due reflection, and that the more barren they are themselves, the more they are likely to sneer at the fertility of the others; this I take to be one of the natural laws of nature.

A sitter enters—a lady; young, good looking, and handsomely dressed, to meet another young, good-looking lady just going out. Fashion rules both fair subjects much in the same way as regards costume; a change of color, perhaps, but cut in much the same tyrannical style. The color may make a slight difference in the two photographs, yet not sufficient to redeem the artist, who has only light and shadow to work with, if he cannot strike out something in the posing and accessories to individualize the different subjects or sitters. But the photographic artist, perhaps, has had six or seven young ladies, similarly dressed, one after another, during that forenoon, each sitter with her own ideas how she ought to be taken—ideas gleaned from someone else's pose, or something she has seen in a shop window or an album—ideas which the original instincts of the artist rebut against. The same may be said of the portrait painter, only that he has days, sometimes weeks, to study his subject, whereas the photographer is only allowed moments to collect his well-nigh scattered faculties. Again, the painter has the variety of color to cover over a repetition of design; but with black and white, a repetition will be at once discovered. This I mention as one only of many difficulties besetting the studio of a photographic artist from the moment the sitter enters, which render his task all the more harassing,

and which cannot trouble the layer-on of colors.

A true photographer seems to me to rank with, and resemble, the troubadour of the middle ages—poets who poured out their impromptu verses to the call of the audience. He ought to be a reader of faces—a close scrutinizer of the inner workings of the subject before him; catch with an eagle glance the peculiarities of gait, the tricks of motion; and be gifted with the rare discrimination which can separate the natural habits from the society affections. I think a photographer ought never to be in the studio when the sitter first enters. He or she ought to be left a little time alone, or, rather, a special chamber ought to be set apart where the sitter may enter, with attractive objects to attract the attention placed about the room, while the artist, for a few moments from an unseen point, may watch and study his subjects when they think themselves unobserved; afterward let an employé enter and address the sitter while he still watches from his point of observation, by which means he may judge and learn what the sitter is in a natural state alone and the sitter in society. And so he may wait, after the instantaneous plate is in the camera, for the moment when the sitter unconsciously looks natural, to flash the light upon her; indeed, I have thought if the studios could be so constructed that the operator need never enter the room at all, but have the camera so adjusted from an outside room that the sitter might not know the moment they were taken, it would be best—for, to me, naturalism is always before even a first-class sighted likeness; however, if the photographer knows the peculiarities of his sitter, and these be comely peculiarities, he will pose so as to bring them sufficiently out for his purpose.

There are many rules laid down by Rubens, Titian, Reynolds, and other masters, for the composition and arrangement of pictures; but of all the stiff, conventional laws laid down, I incline to the jerky, spirited, and contradictory sentences of the American painter, William Hunt, in his *Talks about Art*, for I never yet knew a law in art which ought not to be ruled by circumstances and the good taste of the artist.

The moment a man allows a law to govern him, independent of the great law of reason, he becomes a feeble imitator, and no longer dare launch out into the unknown regions of originality.

Of course, it is strictly necessary to learn all about rules before we dare infringe upon them, for our own convenience and the good of our object. The first and great consideration of the artist, whether of the brush or lens, we must learn the laws of lines and directions—we must know exactly how far we dare intrude the angles or blend the orders without being accused of barbarism; yet, to me, there is nothing so delightful as to fling a defiance in the face of time-worn laws, if my art knowledge and common-sense acquit me of sin in the matter of taste—*i. e.*, my own ideal of what taste ought to be—not Michael Angelo's, or Titian's, or Reynolds's. Knowing their habits by heart, I would not hesitate to turn my back upon them if they did not lie in the lines of my own observations of the multitudinous and ever-crossing laws of nature.

Still, I would have the artist learn all those laws. As the doctor studies botany, so would I have the photographer learn thoroughly the laws of chemistry, physiognomy, and anatomy, which alone can make him master of his great profession; for no man can defy a law who only knows the half of its capabilities and powers. The object in art justifies the means always; but we must not use illegitimate, if legitimate means will answer the same end.

In arranging a sitter or model, both painters and photographers are apt to do just a little too much—adjusting this fold and planting that accessory so as to get them within the form they have determined. I like purity of style as well as anyone, yet it is very disgusting to hear all the twaddle talked about fine lines of direction, ellipses, pyramids, and serpentine lines. The painter or photographer who cannot thank God for a lucky chance or an accidental fold is at the best only a smart mechanic, and no artist.

My advice in posing would be: Try to arrange as little as possible. Leave well as much alone as you can, for, depend upon it,

all your adjusting will never better what chance and nature have arranged between them for your use, but will only tire out the subject and render the picture artificial. If not according to your preconceived ideas, accept the change as something better, and work your best upon it as a servant who has got a new task set by a great and unquestionable mistress.

LIGHTING.

After posing, comes the lighting up of your picture. This portion of the art of photography has become so very far advanced, and there are still so many difficulties in the way of perfect control, that I feel a little timid to suggest any improvement, in case that I am met by the scientific reply that the thing is not possible; and yet I have such faith in the future of photography that I do not consider anything impossible to the operator who flings his whole soul into the discovery of nature's secrets. Light to be manipulated at will, lenses to grasp objects in and out of the present focus with equal intensity and proportion as a painter places objects upon his canvas at what distance and under what shadow he pleases, so I think the photographer will yet do, and that before long, as he will, I am sure, yet be able to reproduce by the camera and his chemicals all the colors in the object set up before him, as he sees it reflected upon his ground-glass focussing plate.

In painting, for instance, the great duty of the worker is to have one pure light as small as possible as a focussing point for the eye to go out to first, with a point of darkness to balance that light, as the light is more striking than the dark. A very small spot of white will serve as the balance to a larger proportion of black, so the wise painter is very chary of his pure white.

In landscape this rule is exactly the same, gray predominating in its various degrees over all. Of course, I am aware that in landscape photography there is *as yet* no means of controlling the lens, that objects must just be reproduced as they stand, and that the utmost the artist can do is to choose a good standpoint with a favorable light, and make the best of it. Yet I foresee the

time when the operator shall have instruments so constructed that he will be able to leave out what is objectionable by means of shades and blinds for the plate, so that he may do as the painter does—alter and transfer his foreground as he pleases.

Inside, the operator has the light more at his control, with his shutters, blinds, tissue-paper fans, and other contrivances to throw the shadow over what portion of the picture he wishes; and yet, with all the softening of harsh lines and gentle mergings of shadows, he has not nearly reached the inner circle of light and shade yet. There are lenses yet to be manufactured which will penetrate to a deeper shadow than he has yet attained, deep although he may have gone in that direction; lenses which will wait and not overexpose the highest lights until the deepest depth has been gained. With remodelling, it is now easy to make light; and what the photographer ought to aim for are the grays, or half-tones, and the blacks, leaving all dead lights and subtle gradations toward light for the remodeller.

Gray is a very precious as well as plentiful quality in nature; beyond the point where light streams from, we seldom, in fact never, see white, and even the point of light is blended with gradations of prismatic flashes. There are, also, throughout nature great spaces; in spite of the multiplicity of detail, to me nature seems to delight in isolation. Take what you please, as example, a street scene crowded with people, what is it to the onlooker out of a window? Simple dark masses (black always predominates in an English crowd), with here and there intersections of space; if you look for it, you will find detail enough, but you must look for it. The general appearances are simple masses of shadow under you, drifting out to the gray, with gradations of gray isolation all round. Take landscape, the ocean in turmoil—gray stretches, gradating from deeper to lighter tones. A mountain and lake scene, the sea-gull coming inland from the stormy North Sea, is the only speck of white we trace throughout it, with the vulture or crow looking jet-black as it intercepts the mellow light.

Space and half tones seem to me the two great qualities to be sought after by the

artist: in focussing, avoid sharp or high lights, but seek to pierce and collect as large and full masses of shadow as your tricks and appliances can give you. A clear and sunless day outside for landscape work, that sort of lustre which drifts soft shadows under trees, and causes the distance to float away indefinitely, where detail is brought out by under tones, and high lights are left to the remodeller.

So with figures, as the subject sits or stands, pour all your light upon the obstruction, so as to give depth in the shadow, blend in accessories with the figure and background with reflected lights, just enough to redeem blackness, then soften over the high lights, so that in the negative there is not a single white, all gray, even to the cambric handkerchief carelessly left out of the pocket—although I trust no operator of to-day ever will permit his subject to exhibit such a speck of vulgarity. I would have all such objects as white flowers, lace, or handkerchief changed, or a dye kept on the premises to stain them brown before the negative is taken, so that nothing could be lighter than the hands or face, unless, like Ruben's work, the subject was to be seen dark against white, in which case the white ought to surround the object, never to cut it in two.

In portraits which I have seen as yet, the art of beauty seems to be the ruling idea of the operator; court favorites such as Sir Thomas Lawrence and Sir Joshua Reynolds are the examples set before the photographer. To flatter the subject are what both subject and worker seem to strive after; when they look to Rembrandt it is for a shadow picture, which, by the way, is no more Rembrandtesque than it is Rubenesque. Rembrandt did not make shadows like the shadow portraits called so; look at his etchings and works and you will see what I mean. Rembrandt's lights were not shiny whites, but tender tones, as his shadows were not blots of dark, but gradations of depth.

There is a portrait of Thomas Carlyle by James McNeil Whistler, where the old sage is sitting against a gray background with a perfect simplicity of space, nearer to the work of Rembrandt than anything I have seen since that grand old Dutchman passed to glory.

RETOUCHING.

Before concluding my remarks, I feel the necessity of devoting a few moments to the great art of retouching, the portion of photography at present too much trusted to the charge of young ladies, but which, if the photographer in any department of the science deserves the name of artist, it is here when with his pencil he begins to create.

I thought when I began to write that I had nothing more to say on photography, after my last lecture to the Edinburgh Photographic Society, and I dread repeating myself; but now that I have got into the spirit of the subject, the possibilities, utilities, and various uses of photography start out before me from the chaos of unthought creation, all importuning me to take them up, one after the other, like a legion of undressed skeletons. Photography as connected with etching, wood engraving, lithography, zincography, typography, and a dozen other uses where photography is not only united in marriage to art, but must be regarded as the husband—*i. e.*, the leading spirit, rather than the wife, in the indissoluble bond; but these for the present I must push back into their vague home, until I can in a future paper take them up by themselves, which I trust to do, as they are far too important to tack on as a fagend to this paper; yet I must crave your indulgence just a little longer while I speak of the negative after it has been developed.

To the dark-room I will not intrude, although here art does enter even amongst the chemicals, when the operator begins to doctor his imperfect plate with his intensifiers and bleaches, etc., witness lately the triumph in this direction, as displayed in the copy of a spoilt plate as shown at one of this Society's meetings by Mr. Henderson, where from the negative of a horse so enveloped in fog as to be almost lost to view, a marvelously lucid negative was produced, and which unless I had seen the original and copy I could not have believed possible. Here the operator can thin and thicken as he pleases up to a point—an operation very nearly akin to what the painter does with his brushes and paints in the intermediate stages of his picture, only that the painter

has again the advantage over the photographer with his materials in the way of ease.

It is the misfortune of all large and prosperous businesses, that like the making of a pin the establishment has to be divided into departments—the poser, not the operator—and so the plate has to go through different hands. It is a pity, but I see no way to avoid the evil, except in special cases, when the artist can afford time to follow up his work personally from the first to the last stage. Were time and money no object, I would have each man or woman assistant in the photographic studio qualified to pose, focus, develop, retouch, print, and mount, with a complete knowledge of all the branches, and a thorough artistic knowledge besides. I would also have them all consider nothing too trivial for their talents in the progress of the photograph, but each to take alternately their turn at the different departments with their own plates; without this I cannot see how the art enthusiasm, which a really good photograph requires, can be kindled and kept up. I think modest photographers in country places, loving their profession, and not troubled with too many commissions, have a better chance, if possessed of equal talents, of reaching perfection than their bustling and prosperous town brethren; in the same sense that I consider the painter who has genius, to paint better pictures when he is setting for twenty pounds than when he is hunted after and getting two thousand pounds—but this is a matter of opinion.

I know also that it was long considered by some professional men to be false art to touch a plate after developing, as it is sometimes still regarded as wrong for an artist to use the compasses or straight-edge to save time with his designs, but I consider these as silly prejudices to laugh at. Personally, I would not pause a moment to use either a pair of compasses, a straight-edge, or a photograph, if by doing so they served me better than my eye, or my sketch, in the making of my picture; neither would I hesitate to call the man a fool who objected to my doing so on the ground that it was not legitimate art.

Retouching is exactly the same work on the negative as if the artist sat down before

any other material. Upon it, if he has the genius, he can do almost anything, so that he has shadow enough as a basis. Here he becomes, as I have said, the creator, and of all the different operations of a negative, this is the portion where the artist stands out most prominently and proves what stuff he or she is made of. There is no end to the variety of work they may introduce as they work on—grains to look like engravings, hatching, stippling, brush work. It is not enough to be able to remove spots and blemishes, or soften off harsh contrasts; girls mostly get up to this mark of excellence, and produce those smooth, meaningless, pleasant portraits of everyday life. The retoucher must learn to keep an expression of the negative, or make one if not there, and this is the lofty calling of a true retoucher. He must put a soul into his model, else he cannot call himself an artist any more than the painter can claim the title who only daubs potboilers. But if the retoucher can do this, and has art enough in himself to prefer soul to beauty or beautifying, then he has as much claim to call himself a painter or an artist (if he prefers that title) as any R. A. in the clique divine.

Expression, or soul, is what photographers are as yet deficient in, and that is the province of the retoucher. I want to see a photographer rise above the prejudice of the flattery-loving public, and lead them by intensity; give to the public faces, ugly as Rembrandt's portraits, yet pregnant with character. I want to see seams, and wrinkles, and warts, as the Great Creator left them—indexes to the wearer's character—and not doll faces, which simper and mean nothing. I want noses in all their varieties, with their own individuality intensified; cheek-bones standing out as they may be in the originals. I want men and women sent down to posterity as they are and not as they would like to be; for I never yet saw a face in its natural state that I could call ugly, although I have seen faces made hideous by *rouge*, and powder *cosmetiques*, and false eyebrows, and also by the retouching which they were themselves so delighted about.

Vice and crime darken the souls which sit behind the eyes—make chins hard, and lips thin or coarse—destroy curves which

are upon all lips when innocent; yet, to me, the most demoniac face that ever peered out upon a hunting world is better in its sombre gloom than that same face smoothed by a bad or mechanical retoucher. Beauty is expression, not chiselled features. A baby is not beautiful until it can notice its mother; then the meaningless bit of flesh is lighted up with a ray from heaven. That God-beam the photographer must catch; yet it is not a smooth surface, but a light breaking through torn-up cloud mists.

The other day I saw the photograph of a child, supposed to be a city-waif. She was barefooted and bare-armed, with a rent in her *pinafore*—a city waif with a pinafore! The photographer had studied his lines, and posed his model according to the rules he had learnt; everything was in its right place about that picture, but, like the mountains about Borrowdale, just a little too exactly as they ought to be. He had taken the trouble of dirtying the hands and face and legs, but I saw at a glance that, although it was all right according to art, it was not all right according to nature. She was not a real city-waif, and to me, who had seen the real article, very far from it.

In Edinburgh, one winter morning, I saw a picture that needed no adjusting, only the camera, to render it immortal—a man out of work, saying good-bye to his wife and child before he went on the tramp. Where the Old Cross of Edinburgh used to stand (before this new malformation was put up), at its base in the High-street they stood—that group of two, with the speck of humanity in her arms: the man, in shirt sleeves, leaning against the railings, snow-laden, with his shoeless feet blue-black against the mud-colored snow on the pave. In his left hand he held a very small bundle, roughly bound in a red-spotted rag of a handkerchief, while with the tattered sleeves of his dirty shirt he was attempting to wipe the eyes of the child, that poor, little pinched and smeared-face baby, who was crying with hunger and cold. The mother who held it in her thin arms had turned her face from her husband to where I could see it as I passed by. She was oblivious to spectators in the silent abandonment of her own woe. A wisp of fair hair fell down from the old

mashed hat upon her head, and hung against her clay-colored cheek. Two tears, half congealed, lay just above the quivering lips. But there were no words of parting passing between those two.

In London one night, in the East End, about the month of May, I saw another picture. It was down by the side of a hoarding covered over with gay-colored placards, and over which a lamp shone. A man, a woman, and a little girl all huddled in a confused mass together. I could not see the faces, for they were hidden on their breasts, but I saw limp hands lying on the pavement, and the light night wind fluttered shreds of rags about. Presently I beheld amongst the passers a female stop to look at them—one of those outcasts, all the more pathetic for the furs and silks that enveloped her. She stooped down to put a sixpence into the woman's open hand, and for a moment bistre rags and cardinal silk flounce fluttered together; then she passed on to her sin, leaving them in their misery. The hand closed on the coin instinctively, but the brain was too apathetic to take in the significance of the gift all at once. A moment or two passed as I watched, then I saw the hand slowly lift and the head listlessly raised; a dazed look into the palm, then a start into life, and, woman-like, a clutch at the arm of her husband. Then both heads lifted to the light, and such an expression of wolfish joy on their faces, that I thought must have condoned for a deal of vice on the part of that unreclaimed Magdalene, as the pair staggered to their feet and dragged off the little one to where they could buy sixpence-worth of oblivion.

These were two pictures which required no arranging of lines or alteration of lighting up, although faulty according to art, perhaps. The humanity about them redeemed them; and it is pictures like these, to be found every hour, which the artist—be he painter or photographer—only requires to go out and secure to make art immortal.

CORRESPONDENCE.

ONE of the earliest of amateur photographers, one of the most devoted advocates of photography, and a constant reader of

the PHILADELPHIA PHOTOGRAPHER, is Prof. C. Piazzzi Smyth, the world-renowned pyramid authority, explorer, author, and Astronomer Royal of Scotland. Since, over twenty years ago, we received from him a series of glass stereoscopic views, all enlargements from his tiny negatives, we have enjoyed correspondence with him. He created our personal love for Egypt, and was the immediate cause of our journey there. We want our readers to know more about his work and to enjoy him more, so we make free to add some extracts from one of his letters. Another object we have in view is to show our readers how business may be pushed by one who has the enterprise to do it. We withhold the name of the photographer, that we may not be too personal:

MR. EDWARD L. WILSON: On returning home with my wife from a long health excursion in England, I have had the pleasure of finding another of your most punctual presents, viz., the PHILADELPHIA PHOTOGRAPHER for July, and your treatment of the difficult case of electric lights and their reversals, water drops, etc., for all of which, accept my best thanks.

While away, you were very frequently in my thoughts, and I had hoped before this to have had something important to communicate to you in your own line, for on the journey I picked up a guide-book, by a local photographer, as good as it was cheap, or better, for the literary part was safe, excellent, and really high, while the advertisements seemed to say that M. N. M. carried on a large manufactory of guide-books for various parts of the kingdom, and worked photogravure and other methods of printing photographs with exquisite definition and splendid middle tints of unsurpassable chiaro-oscuro, while he also manufactured largely photos burnt into enamel tiles, for all perpetuity. How he could accomplish all that in the steep little country town of M., all aslope on the side of a steep, isolated hill, was a wonder to me; nevertheless, I sent you off two of his guide-books—one for M. and the other for W., and wrote to him for an interview touching his photogravure publications, also offering to show him your PHILADELPHIA PHOTOG-

RAPHER, with the instantaneous shipping views at San Francisco.

At last I saw him, and found him to be that admirable marvel, an honest man, for he at once explained that everything in his guide-books was done for him. He employed the highest University talent to write the letter-press, and employed the London Autotype Company to print, or rather photograph, his plates; and as for a charming example of a photo. baby on a white porcelain tile on his counter, it came from Germany. When I enquired what might be his specialty, or what there was he could do better than any one else, he said, "Nothing; the Americans beat us in everything." He had been at the New Orleans Centennial, and had there seen the originals of the San Francisco instantaneous shipping views of your previous number, but, lamentable to say, had not looked *you* up. However, he seems very successful in local portraits, both single and in groups, and herewith I send you his rendering of a grand old lady, sister of a member of Parliament, and over one hundred years old, a speaking testimony to the healthy climate.

I also beg to enclose a couple of cathedral photos. One of Tewkesbury, scene of great English events when the Yankees were still with her; and I wonder whether they were most for the red or the white roses in the wars of those times. The other photo is of a later and more ornamental cathedral at Worcester. But I begin to tire of cathedrals and all their gorgeous architecture, after reading a poem of the 14th century by an old monk of Malvern, viz., "The Vision of Piers Plowman," setting forth that the age (13th and 14th centuries) which produced the most splendid of all the cathedrals was that which saw the priests and monks most deeply sunk in ignorance, drunkenness, oppression of the peasantry, and every kind of sin. The author takes up so earnestly the cause of the people that I think he must have been one of the progenitors of the Pilgrim Fathers of your land.

Yours, very truly,

C. PIAZZI SMYTH.

15 ROYAL TERRACE, EDINBURGH.

MR. EDWARD L. WILSON: *Mosaics* just to hand. Thanks! As I see you are going

to publish the PHILADELPHIA PHOTOGRAPHER semi-monthly, I should like to make a suggestion. If you would illustrate one number of your journal with the same kind of pictures as it now is illustrated with—that is, the best pictures, taken by the best photographers—and the next number with two pictures of the same subject; for example, two bust pictures of the same person; one showing full front view in plain light, not retouched; the other the person seen from the best side, in the best light, and retouched in the best way. The subjects ought to be common, or rather homely.

For half- and full-length figures, positions ought to be shown; and for landscapes, different point of views and kind of light could be taught. Engravings of the best paintings, by the best artists, would be very desirable, and, if possible, criticise the pictures in the same issue.

Comparatively few photographers of to-day have an artistic education, and that is what they want more than anything else, and they would be willing to pay for what would be a great help to that end. We are often told how good it is to study the works of the great masters, but how many of the photographers of to-day have occasion to do it? And photo-engraving is now brought so much to the front that it ought to be used in photo-journalism.

I am a foreigner, and am not able to explain myself in English as I wish, but think these ideas worthy of your consideration. The question box is very good, and should not be lost sight of.

Very respectfully, J. J. ESKIL.

FLORENCE, WIS.

[We thank our correspondent for his excellent suggestions, and he will see that they will be followed very extensively. Moreover, we trust our patrons will be pleased and instructed thereby.—ED. P. P.]

A GOOD EXAMPLE FROM FAR AWAY.

MR. EDWARD L. WILSON.

MY DEAR SIR: Being way down here with Chute & Brooks, feel the want of books; yes books—photographic books, so as not to be way behind everything when I return home. I must more than before have books to pon-

der and study over; so I inclose list of books I want, and hope you will be able to get those for me which you do not publish yourself, and send them mailed, in one, two, or three packages. Send them at your *earliest* convenience, as I long for them. I think they will go safer by sending them in three or four packages, and oblige yours, photographically,

ODIN FRITZ.

MONTEVIDEO, URUGUAY, S. A.

FROM THE HONORARY SECRETARY OF THE
LONDON CAMERA CLUB.

DEAR SIR: Your favor of the 7th inst. duly at hand. I am desired to send you the thanks of the Committee of Club for your kindness in sending us your paper. I also thank you for kind letter to self, and shall be very glad to send you particulars any time.

Our Club was started on October 1st, and opened on November 14th, and then we had about 100 members. We now have 260 members on our books, and they are coming in every day, and I hope by July to have 300 or more members, which I think very good for an amateur Club. I am kept busy, and have to write from ten to thirty letters a day, so am kept well at it. Our Club at present consists of two rooms (smoking and reading), and washroom, and steward's pantry, and the darkroom with four sinks, etc. etc., and with everything of the best that can be got. Lamps with white, red, blue, green, yellow, canary, etc., light, and every known developer. We have a gossip every Thursday, when any member who likes drops in, and we all talk shop. We have had two *conversazioni*, the first on opening evening, the other for ladies; and we have one on the 21st of January for ladies and children, when I again give the magic lantern lit by electric light of a small battery only weighing about five pounds when full. You will see an account of it. I think, in *N. Y. Times (Photo.)*. I am the first person who has ever lit a magic lantern with a battery so small. I send you a printed form of the constitution, and a photo. of me and my lantern; the battery is in the *box* on the table. We shall keep up our Thursday evening gossip all the year, and I shall have some one to show something at every meeting,

either new paper, developer, shutters, etc. etc., so as to keep our members well up in what is going on in the photo. world. I shall be glad of a line from you at any time you can do so. One great feature in our Club is having dark-rooms all over the country. We ask those members who have dark-rooms to let members of the Club use them if in that part of the country, and I have got a lot of professionals to do so, and have over 40 dark-rooms on my books, so that when a member is on a trip, he can look in our book and find out where to go and change his plates, etc. If you want any information any time, drop me a line, and you shall have it. Wishing you a happy new year (if not too late),

I remain, yours truly,

A. DRESSER,

Honorary Secretary.

SPRINGFIELD, BEXLEY HEATH, KENT.

DON'T GO TO FLORIDA.

DEAR SIR: Enclosed P. O. for which please send me *Photographics* by first mail you can. Intended to have gotten it long ago, but neglected to do so. We are having very cold weather for Florida, but the photographers are rushing down here as usual, expecting to make a small fortune. There are too many for the State, and as a consequence prices are beginning to lower in most places. There are three of us in this little town, and we agreed not to cut our prices, although there is not more business than one could do. It would save some poor photographers a good lot of expense and trouble if you should mention in the PHOTOGRAPHER what I have said about there being too many in the State, and the low prices prevailing. Jacksonville is the leading city of the State, and I send you the following advertisement of one of the photographers there:

GREAT REDUCTION IN PHOTOGRAPHS.—By Davis, 13½ West Bay street. One finely finished cabinet size, \$1. Duplicates 25 cts. each. Card size, \$1 per dozen. Good work guaranteed.

I have *Mosaics*, for 1886 (presented to me by the firm I deal with), and it is, as usual, full of good things. Would not miss it for anything.

Respectfully,

C. H. COLBY.

OCALA, FLA.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

AS TO THE QUERIES ON PAGE 23.

In regard to the use of hyposulphite of soda as an accelerator, there is no doubt a marked advantage in its use for underexposed plates. Frequently I have, when developing large plates at New Orleans, put my hand into the fixing bath of hypo and transferred it to the developing dish, rubbing the plate, which was lagging a little in development, with my hand, so that the hypo came into actual contact with the negative, and I am quite convinced that it had a marked effect in accelerating development.

With regard to "Alaska's" questions, although not a Niagara photographer, I have had considerable experience in photographing snow and ice scenes, and will willingly contribute my mite to your excellent column of Queries, Conundrums, and Conclusions, which I welcome as a new departure in the right direction.

The great danger to guard against is *underexposure*. Most tyros think that because there is such an expanse of white the exposure will be short, but it is not so. I have frequently given more than double the exposure for a particular snow landscape than I have given the same scene in full foliage. The reason is this, the white, if exposed for a short time, will be overdense and without gradation. But gradation is the only thing which makes a snow scene of any value. Give it long exposure, and the density gives place to a thin but sparkling image, with only the highest lights on the snow dense enough to print white, while the trunks of the trees, buildings, etc., will get gradation without that heavy blackness seen when the snow is represented by a white patch. But to get out this overexposed image a special treatment in development is required. First, the plate should be soaked in water containing a good proportion of bromide, $\frac{1}{2}$ an ounce of a 60 grain solution in 10 ounces of water. Soak for at least five minutes. Then commence development with weak developer. If you use the pyro and potash developer, use little potash till you see how your plate is developing, and, above all, do not push

the development. Keep your negative thin, it will print all the better. For the benefit of those who have not used the potash developer I give the formula:

No. 1.

Carbonate of potassa . . .	3 ounces.
Sulphite of soda . . .	2 "
Water . . .	12 "

No. 2.

Sulphite of soda . . .	2 ounces.
Bromide of ammonium . . .	40 grains.
Citric acid . . .	60 "
Pyrogallie acid . . .	1 ounce.
Water . . .	12 ounces.

The usual normal developer is 1 drachm of each of above Nos. 1 and 2 to each ounce of water used in development; but for snow scenes I use 1 drachm of No. 2 and $\frac{1}{2}$ drachm of No. 1 to each 4 ounces of water, adding No. 1, if wanted, till the full drachm is used, but *no more*. If the negative requires more than the normal developer, it is underexposed, and you will not get the best effects from such a negative.

G. HANMER CROUGHTON.

W. S. D. writes, that if the citric acid is replaced by sulphuric acid, half a fluidounce instead of the ounce of citric acid, the formula given to Sybil S. for reducing negatives, in the number for January 1st, would be greatly improved. He has tried both, and prefers the sulphuric acid. He says it works best while the plate is wet and just out of the fixing bath, a trace of the hypo in the film aiding the action of the reducer.

Query: Would a trace of hypo added to the formula act better upon washed and dried negatives which want reducing?

E. L. W.

INTERIORS.

A number of photographers have lately raised the question as to whether negative paper is good for interiors.

The following letter from one of the best known view photographers in this country, lets a flood of light on the subject. Speaking of Eastman's negative paper, he says:

There is one thing for which I give all praise to the films, and that is in taking interiors. I never saw such before—halation gone. I have had a number to take lately,

and the windows are perfect. The last I developed actually had the *windows visible before development*—a most unusual thing. It was a college library, and had half an hour exposure—very dark. The only position was opposite the only windows visible from point of sight.

Yours very truly,

ALEX. HENDERSON.

MONTREAL.

WILL you please tell me through your next issue how to remove the silver from my cyanide fixing solution? It has been in use four years. I had thought it must hold some silver, but how much I could not pretend to know. Respectfully,

D. W. BOSS.

Not enough to pay our friend for bothering with it personally. It would pay the most to send it to a refiner, and not run the risk of being poisoned

Being a subscriber and constant reader of your PHILADELPHIA PHOTOGRAPHER, I read the many good things therein contained, and take the liberty to ask you a few questions of advice, and, if they are not secrets, would do me much good in my daily toil. The first is of the paper that is used to make the prints for the PHOTOGRAPHER; is it white or pink? I have been using the new N. P. A. Pensé paper for some time, and like it better than anything I have ever used; but I find so many difficulties in toning the prints: can't get even tones. It seems the paper loses all its surface, and has the appearance of plain paper. Of course, it comes back again when the prints are dry, but they have a dull look—no brilliancy to them. My bath is sixty strong, and I use sal soda in it; never filter or boil it down; just keep it up to strength, and add a few drops of sal soda. My toning bath is made up of water, a little salt, gold, and carbonate of soda. Now, Mr. Wilson, as I said before, if it is not a secret, or if it is not too much trouble to you to answer me and tell me the best brand of N. P. A. to use, the best printing and toning bath for the same, you will confer a favor on one of the craft that will help me in this life, and one that I will be very thankful to know. I hope I may have a reply from you soon,

and that I have not gone too far in asking you these questions. I remain yours truly,

J. K. ZAHN.

Having admired the prints which have appeared in the PHOTOGRAPHER during the last year, more particularly their tone, the description of which generally stating that they "were made on the well known N. P. A. paper," being insufficient, may I ask if it would be presuming too much on your good nature to request you to give in the PHOTOGRAPHER the working formula, viz., strength and composition of silver bath, time of floating and fuming, as well as composition of toning bath.

WALTER K. COLLINS.

I see by the PHILADELPHIA PHOTOGRAPHER that, in printing the pictures for your journal, you use the N. P. A. paper. Now, will you be kind enough to inform me how you work the paper?—that is, the strength of the bath and the time of floating; also how you treat your bath as to albumen? I use a plain bath—50 to 55 grains strong—and float two minutes. Do you think a plain bath ought to be acid or alkaline? I have read several articles on printing, but they don't seem to be very plain. If your printer will give me his way of working, I will be greatly obliged to him.

W. V. LANE.

In answer to all these queries about paper, we append a letter below from Mr. Charles T. Fellows (of Roberts & Fellows), who has done our printing for a long time, believing it will practically supply the information asked for:

There have been several applications for formula for working the N. P. A. paper, and as we seem to have so little trouble with it, I will gladly impart what little information I can, hoping my suggestions may be of some value to you. In the first place we use the pensé, which is now considered the best, giving the best whites. We use the simple soda bath, rarely turning it out, merely making our additions as required. When you find, by certain conditions, that the bath is clogged with albumen, simply sun it well

and filter. Always skim the surface, before floating, with some strips of wrapping paper. There will be quite a scum on the bath by morning, which is readily removed by this means. If too acid, use carbonate of soda. For winter:

Bath	50 to 65 grs.
Float	2 to 3½ min.
Fume	20 to 30 "

using judgment if the day be cold or warm. In toning, wash well in plain water, then tone in

Water	32 oz.
Gold	1 "

1 grain to 1 ounce of water,

Make slightly alkaline. Use a pinch or two of salt.

Silver bath keep slightly acid. After following these directions I do not see but that you should get good results.

CHARLES T. FELLOWS.

THE HUMOR OF IT.

THEY are counterfeiting "the works of the old masters" in Europe, the villains! Here some of "the old masters" in *our* art are counterfeiting the works of the "Cheap Johns" by lowering their prices and the grade of their work.

The English *Amateur Photographer* tolls the requiem of the Cleveland Amateur Photographic Association, recently defunct, and says: "Amateur photography in the States is not in such a vigorous state as with us," etc.

No, but it is in a good many *more* "vigorous states," if the late Philadelphia Exhibition is any criterion.

A pretty young girl down in Austin
Bought a camera-box up to Boston;
It leaked light when 'twas tried;
Then the young lady died,
'Cause she took cyanide,
That photo. young lady of Austin.

There is a deep nick in Time's restless wheel
For each man's good, when which nick comes, it strikes.

—*Chapman.*

Yes, brother poet, but how are you to do when the old Nick gets into the wheels of your roller-holder and it won't click? How?

Why, put in another reel of paper, of course.

A PHOTOGRAPHER'S DODGE.

Unsophisticated clerk to her employer: "Shall I send Mrs. Jones's proof home to her to-day?" "No," said the master of the shop, indignantly; "if you do so, it will be thought that we are doing no business. Wait two weeks."

German countess: "Baron, will you give me a photograph of yourself?" Baron: "Certainly, madame; you flatter me by asking for it." Countess, after the baron's departure, to her waiting maid: "Here, Claire, put this picture in your album, where you can study the features closely. Whenever the original of it calls, tell him I am out."

The difference between an adept and an amateur? Why, the first photographs for bread, and the latter for—butter.

VIEWS FROM MY OFFICE WINDOW.

LITTLE did I think when I took my first views from here that there could be such a change in the weather. Yesterday about 3 P. M. it quit snowing. It had been at it for full twenty-four hours. The poor little mercury bulb had been frightened away down to nothing, and the cold pedestrians all looked as though they too would like to expose as little surface to the keen air as possible. And they were *nearly all* pedestrians too, for the cardrivers on all the street roads in sight had "struck for twelve hours," and it was one of those occasions which the poet spoke of when he said

"Them that's rich, they rides in chaises,
But them that's poor? By gracious they
must walk."

But to-day, how different. A more perfect winter day could not be imagined. It is cold; but the blessed sun shines. The sky is so blue—the air so clear. The people walk nimbly—the children jump and frolic, and the cars are moving to the tune of merry bells. The great masses of steam from the escape pipes about the square, arise in giants

of light and shade, flirt with the sun a moment, and then chase each other over the housetops toward the East River. It is a *gay* sight.

But oh! what *pictures* the cold weather drives out into the streets. We do not get such in the summer time. Such compositions, conglomerations of drapery, and masses of light and shade—mostly shade for these poor people, I fear.

There is one coming full square toward us. She is old and wrinkled. Her dress is an old ragged plaid, patched with newer pieces, and from the way the short skirt protrudes, I imagine there are plenty of gunny-bags and coffee-sacks underneath—perhaps a petticoat—to keep her warm. A red shawl covers her shoulders, is crossed at her waist, and tied in a big knot behind. She has a clean white apron on, and a blue kerchief tied over her head and under her chin, a pointed corner hanging behind. Her nose and cheeks are rosy, and her mouth is wide open. In front of her she carries a huge basket of laundried linen.

Talk of Naples! This is a bit of it.

And as I live, there is a genuine study from Rome! A real Mora-player, such as one sees at the Fountain of Trevi, or on the Spanish staircase. I was not satisfied with a look at him from the window. I went down to his feet and worshipped him, while *he* plied *his* vocation. He was a ragpicker. How he could tell where the rags were, under the snow, I could not guess, but he did. He had an enterprising hook, but I could not see that it had eyes. He had on a plaid coat, and a soft black hat shaped like an inverted funnel with the nose pulled out—there was a hole where the nose ought to be. Creeping over his forehead was a curl. His legs were bowed like a far-knees Hercules that he was. He had an inconsolable nose, as ugly as blisters on a full sheet print. He was dumpy, and his trousers were short, but oh! the picturesque sack which he carried upon his back. Such indentations and elevations made up a *chiaro-oscuro* that was most tempting. He had on one blue mitten with red spots in it. But the hand with which he plied the hook was bare and chapped. Which side would I have taken if I had had my camera there? Why the ab-

side certainly, and the facade, if there was time. He was a mass of catch-lights and curious lines.

There is a young Miss I see every day, as angular as one of the leafless trees down there near Lafayette's Statute. She wears a veil which terminates just at the tip of her nose and spares a diamond-shaped mouth, which looks like a velvet-framed mirror with the glass knocked out. She must be a perpetual terror to those who have to do with her. She is *not* a picture.

But here is one full of pathos. Only a young woman carrying a baby, but then—think how the old Masters used to paint Madonnas. One little rosy cheek—one great blue eye—one visible curl as black as the world's scowl, made prematurely gray by the snow which has settled upon it—all covered by a bunch of rags æsthetically chosen and arranged—a red skull-cap on its head. The mother is clad in a well-worn, yellow over-garment, darned and mended, but it is not long enough to hide the secret of her faded calico dress, which hangs below it. She has a heavy burden in her arms, but a heavier one in her heart, for her pale, pathetic face tells the story. She comes from the west side, as I see her every day, and she walks diagonally across toward the east. I followed her yesterday, contriving how I might bring some light into her face. Then, when I came up to her side, I said, "Madame, will you *sell* that pretty baby?"

She started; hugged the child more closely, and then, catching my eye, broke into a smile, and answered emphatically, "No, Sir!" In turn, I was startled, and while I dreamed over the picture, she got away from me, and her red woollen cap was the last I saw of her, except the edge of the thin calico dress. I wonder where she takes that baby every day?

As I came back, I saw in a window a collection of portraits of musicians of note, the photographic productions of Prof. Karl Klauser. Now I have found out where they are, I can see them from my office window. You shall hear more particulars concerning them.

Here is *another* daily picture: He is the loftiest man who appears on the square. He

has something to give to all who will take. I have deceived him into giving me several. This is a fac simile supplied by the Moss Engraving Co.

MRS. C. A. N. SMITH,

ARTIST

840 BROADWAY,

Cor. 13th St., NEW YORK.

Ladies' Portraits a Specialty.

Reduced Prices.

Colored Crayon and Oil Portraits from **\$1 to \$50**, according to finish and size

Imperials **\$3** per dozen, Cards **\$1.50** per dozen.

4 CARD PICTURES, 50 Cts. IMPERIALS, 25 Cts. Each.

GEMS,

18 for 25 CENTS,

Finished in ten minutes.

All kinds of Pictures made and copied

Good Pictures taken in Cloudy weather.

Card Pictures in Clubs of Ten. \$1.00 per dozen. Imperials \$2.00

What a tale it tells.

I saw the representatives of the Eastman D. P. & F. Co., and of Carbutt's Keystone Plate Factory, crowding up the stairs together day before yesterday, and I am going to find out what they saw.

Now I discover a familiar face, and a good, kindly face it is too. The moustache is grayer than it was when I first looked upon it over twenty years ago, but there is a larger man who wears it. He is an unusually large man; and now, as I see him coming, with his rough ulster down to his feet, and his black sealskin cap adding ten inches to his height, he seems like a giant. It is W. Irving Adams, Esq., agent of Scovill Manufacturing Co.

He is at my door now, come to make his first call upon me at my new office, and so our views must end for the present. It has been too cold lately to hoist the window, so I haven't seen Sarony's show yet, or O'Neil's, but I shall pay them both a visit soon, and the Pach is not far away. It rains again.

PHOTO FACTS AND FANCIES.

THEY want a good instantaneous shutter in France. What a pity, when we have an abundance that we cannot stop.

AMATEUR photography is practised in the palace of the Czar of Russia. No "detective" camera there, as one would suppose. Instead, such antique and comic affairs as the Archer Camera and the Sutton Globe Lens, together with a giant camera and a seven-inch Ross Portrait Lens, have been sent from England.

A NOBLE EXAMPLE is set by the gentlemen of the Amateur Club of Philadelphia, in giving lantern exhibitions to the inmates of the charitable institutions of their city. We hope to see their example followed wherever societies exist. And why not?

J. B. LIPPINCOTT, Esq., the great publisher, who died recently, was the first manufacturer of photograph albums in America. He made them good from the start (about 1863), and we have one of the first he produced.

ALL of our contemporaries have "turned over new leaves" for '86. The *St. Louis Photographer* has much improved its literary matter; the *Times* has a new cover and a smaller page, and the *Bulletin* partly dispenses with the double column and runs the lines across the page; and we? why, just look! We have an *open corner for everything*.

How you can help us, if you will be so good. Every letter we send out contains one or more of our circulars. You do not need them, because you get our magazine; but somebody else does need them. Won't you please send one, with a good word or two, for our common good. Every new subscriber we get helps us to improve our magazine.

THE OPEN CORNER.

I WAS much interested in the remarks by Mr. Templeton in "The Open Corner," page 77.

What we amateurs want is "technical education." I care not how practical or how successful one may be in any vocation,

he will always have better success if he knows why he gets his results.

Classes of instruction would be of great service if we could have them, and I think our amateur societies would do better to employ some capable persons to instruct them technically, than to waste the time they do in stumbling out things for themselves. I am an enthusiast in this matter and *want to know all I can.*—A Chicago Amateur.

MR. HUME NISBET'S paper on "Where Art Begins," though published in parts in our foreign exchanges, is given entire in our current issue, for we think it worthy of being preserved under one cover, and gilt edged.

Some curious comment has been made in our English exchanges, on some of Mr. Nisbet's remarks. It is easy to criticise, and some people who never can think very deeply, think it is "smart." But, "Where Art Begins," is a straightforward, manly paper, and will be largely read and largely useful. The generous author is entitled to universal gratitude.

OUR PICTURE.

A STUDY of "Themasses" will attract the attention of the masses we are sure; not only on account of the ever pathetic, ever amusing character of the individuals which make up the study, but on account of the excellence of the picture. The negative was one of the happy catches of Mr. H. L. Roberts, of Roberts & Fellows, Philadelphia, whose latent humor and photographic skill enable him to see and secure such subjects. It can scarcely be excelled in naturalness and arrangement, by the most studious and talented painter. There is genius in every head, well depicted, and life in every ear. And what character in the faces!

Goldsmith has said somewhere in the "Deserted Village,"

"To me more dear, congenial to my heart,
One native charm, than all the gloss of art."

He was evidently inspired by some such "native charm" as this group presents—as every antique "deserted village" in the Orient presents—and he was a true poet to be able to see and to love such pictures; so

free from, and yet, though it may seem paradoxical, so covered over to the minutest hair, by "the gloss of art."

But every one who knows the donkey, knows that he is the prince of paradoxes. When Wordsworth in his "Tintern Abbey" rising into the sublimity of thought, spoke of the surroundings about as creating

"A sense sublime
Of something far more deeply interfused, etc."

he did not fully realize the picturesqueness of things, until he went outside the ivy-clad walls and there saw his patient ass awaiting his coming, and then sang in answer to the welcoming bray of the faithful beast: "ah! there is

A motion and a spirit that impels
All thinking things, all objects of all thought,
And rolls through all things."

Many a time did we think of this when wandering, on donkey back, among the "deserted villages" of the Nile, and of Syria, and of Arabia, and of sunny Italy as well. In all these places the donkey is surer to be than the lizard and the chameleon, and pretty surely "rolls through all things."

By the Arab drivers, out of respect to the American traveller, the usual name given the little animal is "Telegraph," and you shall be the judge whether or not he is misnamed. He is speed spread out! He is the poetry of motion! He is the master of reverse action. He can fall asleep on one side and keep his other eye open to all that goes on. He can dodge any blow that comes within reach of him, and can cause more trouble in a minute than an electric machine or a new developer. He responds more actively than a telephone, and can put more feet to the foot in his kick than anything going. He can tell to a hair when you are about to twist his tail, and puts himself in a semicircle to head you off. He can look you in the face with the same bland and placid expression which you now observe, and at the same time be concocting a kick which will, if it reaches home (and it almost always does), put a hole in every pocket in your clothes. He is a most changeable animal. He brings out all that

is fickle in your nature. One moment he causes you to regret that you were ever born; in the next you are cajoling him with your arm about his neck. At one time you think you love him, and the next you are sure you hate him. His first greeting in the morning is a bray of pleasure at your appearance; in less than ten minutes he will send your camera flying across the desert by an unlooked-for demonstration of grace, that will convince you there is nothing certain about him but his changeability. A look into his face would convince any judge of *human* nature that the owner thereof was as harmless as a dove; and yet, his character is as black as his shadow on the desert gravel. A curious animal is the donkey, and as truly an Oriental puzzle as the pyramid and the sphinx. And yet, in his life-walk he follows only

"A few strong instincts, and a few plain rules."

like any other politician. We confess to a strong liking for him, though many a time, when upon his back we were sentimentalizing over his patient jog, he has quietly lowered his haunches and slipped from under us, not once casting back a friendly glance to see how soft and deep was the desert sand upon which he had so suddenly seated us.

Wordsworth has again said:

"Happy is he who lives to understand,
Not *human* nature only, but explores
All natures—to the end that he may find
The law that governs each."

If this is true, we are then only partially happy. We have yet to return to the Orient for further study, for our climbing intellect does not yet understand entirely, the "law that governs" the ass.

"Our picture" has been upon our desk for a fortnight, where many of our visitors have had an opportunity to admire its technical excellences and laugh over its grotesqueness. One of the veterans, who says, "I have taken your journal a quarter of a century" (but he hasn't, it is only twenty-two years), avers that the group reminds him of the editors of the five American photographic magazines.

The PHILADELPHIA PHOTOGRAPHER is

represented by the genius on the left, while the *Bulletin* reaching over his neck in a friendly way, is giving attention to what the *Times* is trying to plan with his head so close to the oldest of them all. The *St. Louis Practical* reaches out a very long ear towards the New York trio, while the *Beacon*, placidly at the right of the group, would catch all that comes along.

The prints were made by the Photogravure process of the Photogravure Co., and are technically first-class, both in execution, uniformity, and color. We have frequently asserted that this is "the coming process" for book illustration and pictorial reproduction, and are glad to see that our esteemed colleague, Mons. Leon Vidal, Editor of the Paris *Moniteur de la Photographie*, shares this opinion. For only in his last issue, in speaking of a similar method, he writes:

"Marvellous results have been obtained by this excellent process. Its application is one of the most interesting that can be made, inasmuch as illustrations are becoming more and more popular, and it is now almost impossible to publish fine editions and reviews without the indispensable complement of vignettes in the text. Wood engraving, so dry and hard, has had its day for illustrations, and we may well ask why should we have recourse to it now, that we have the means of direct reproduction of the original designs."

Surely it is the process for the masses. The time will come, too, when business photographers will be the ones who will bring these matters to the attention of the great public.

THE EAGLE DRY-PLATE COMPANY.—Photographers who have had difficulty of late in securing enough plates of their favorite brand to meet their wants will hail with pleasure the advent of a new manufactory whence their demands may be met. The EAGLE DRY-PLATE Co., with Mr. G. GENNERT as Manager, and Mr. H. NORDEN as superintendent of the works, with a staff of skilled workmen, is guarantee enough of quality and uniformity of product, as well as prompt filling of orders. "Quick, clear, and reliable" is the "Eagle" motto. Of the new works, more anon.

PERTAINING TO THE



SHORTLY after the Buffalo Convention, I requested the lady and gentlemen named below to act as solicitors for exhibits and essays from foreign countries:

Mrs. Fitzgibbon-Clark for Mexico, Cuba, and the Pacific States.

Mr. C. Gentile, Austria, Italy, Portugal, and Spain.

Mr. Edward L. Wilson, France, Belgium, and Holland.

Mr. J. Traill Taylor, Great Britain, Ireland, and Russia; E. & H. T. Anthony & Co., the German Empire.

Having all accepted, I now officially confirm these appointments.

The editors and publishers being pitted against each other, I hope there will be an energetic but friendly rivalry as to who shall secure the most important and extensive contributions to our next convention from these sources.

W. H. POTTER.

St. Louis, Mo., Jan. 18, 1886

[We have already invited the countries we represent, and now again call upon them to help us out.]

SOCIETY GOSSIP.

THE principal interest at the meeting of the New York Society of Amateurs, Jan. 23, was Mr. Beach's demonstration with the magnesium light. The members and friends were grouped in the Society rooms, and a picture made of them quite successfully. Previous to the experiments, Mr. Beach read an explanatory paper, from which we make some excerpts. In beginning, Mr. Beach said:

"Pictures can now be so easily made by

the aid of artificial light upon the present extremely rapid dry plates, that it is only a question of a short time when the active professional photographer will make it a part of his business to photograph theatre and opera scenes, ball-rooms and their occupants, banquets, etc.

"Those of you who know anything about the uncertainty attending the igniting of two or three magnesium tapers simultaneously, can appreciate the difficulty necessary to be overcome, and it was this problem which addressed itself to me. How to ignite three or four independent magnesium tapers at once, by the act of one individual, which were distributed about in different parts of a room, was the question.

"From some suggestions contained in a recent number of the *British Journal of Photography*, I learned that, by burning magnesium in a large glass flask filled with oxygen gas, a most brilliant actinic light could be obtained, softened and diffused by the confined cloud of zinc oxide given off.

"It then occurred to me that it would be possible to arrange some special means by which the magnesium could be simultaneously ignited and also be burned in a continuous supply of oxygen. The result of my study will be shown by the experiment we will soon undertake."

Drawings upon the blackboard were then explained, after which the experiments were proceeded with.

"Arranged near one end of the room are two tin boxes near each other, about the size previously described—one, however, somewhat smaller—suspended about eight inches below the ceiling from a horizontal wire running crosswise from a projecting gas-pipe in the ceiling to a fixture in the side wall. Both are hung in such a way as to throw the magnesium light at an angle of 45° upon the audience below, and located as far forward as will prevent them from being included in the upward angle of view of the lens, which, you will observe, is sufficiently large to take an 8 x 10 picture.

"I have two cameras arranged at the further end of the room. Upon one is a 14-inch Ross rapid symmetrical lens, and upon the other is a French, Hermagis lens. One of the cameras was kindly loaned me

for this occasion by Messrs. Anthony & Co., and the other, a Scovill revolving back, by Mr. Frank G. Dubois, one of our members. Both lenses are to be worked at their full aperture. Mr. H. J. Newton has also arranged a third camera next to the others for a $6\frac{1}{2} \times 8\frac{1}{2}$ picture. In each of the two tin boxes are tapers of magnesium ribbon. The large one has 60 inches, the small one 48 inches.

"You will observe that both the boxes are connected by a rubber tube to an oxygen gas cylinder standing on the floor, near the side wall. A T-joint is arranged in the pipe so that the gas will be equally distributed.

"From our new electric light bichromate battery, consisting of four large cells, and named the "Aurora," located near the oxygen cylinder on the floor, are run two insulated No. 16 copper wires up along the wall, and thence over the suspended horizontal wire to the tin boxes, and are connected to the respective binding posts in each.

"An open circuit key is placed upon my desk, arranged so as to close the circuit by pressing the key. I will first turn on the oxygen gas; then, with the word 'Ready,' will press the electric key, and, if all proceeds as it should, the picture will be taken. Mr. Hoover has consented to make the exposure, and will operate the two cameras at the same time.

"A second form of magnesium light was also used—an egg-shaped brass funnel, having an aperture in the bottom of about $\frac{3}{16}$ ths of an inch in diameter, or equal to an ordinary sized pea. Just under the mouth of the funnel, supported on a retort stand, is an alcohol soldering lamp, having a long, horizontal, oblique nozzle, which allows the flame to come under the mouth, but permits the wick to be a trifle to one side; on the floor underneath it is a pan to catch the waste sand. Some find magnesium powder—about a thimbleful—(I have a sample bottle of it here, which I will pass around) is mixed with an equal quantity of fine white sand on a piece of smooth paper and well stirred with a stick of wood or with the finger. The alcohol lamp is lighted, and when all is ready the mixture is quickly dumped into the funnel and falls in a steady

stream, on the hour-glass principle, upon the alcohol flame. The particles of magnesium are immediately ignited and a fine actinic brilliant flame is the result, which is more reliable, it is said, than the ribbon."

Mr. Beach said: "It will be my purpose to operate this form of light, independent of the other lights, as a source of side light. It is an experiment easily tried, and will be interesting."

A Benjamin magnesium lamp was also shown. After the exposures were made, the negatives were developed and prints made on the Eastman permanent bromide paper. The experiments were heartily entered into, and reminded us of our own wrestlings to make the magnesium light practical for portraiture nearly twenty years ago. It is all recorded in our back volumes.

We were prevented from attending the meeting of February 9 by the annual meeting of the Photographic Merchants' Board of Trade, but an enthusiastic session was held. Mr. G. Cramer was present for a little while in the evening.

Mr. Beach, assisted by Mr. R. Baker, gave a demonstration on enlarging on the new permanent bromide paper, making use of the Society's lantern. An improved easel, presented to the Society by the Eastman Dry Plate and Film Company for holding the paper, was used and exhibited.

Following the demonstration was a discussion under the charge of the Question Box Committee, on the best method of developing an instantaneously exposed plate.

Prints from magnesium pictures were on exhibition.

THE LADY AMATEURS of Chicago have formed a Society. But they were by no means the first. Philadelphia has had a Society for about two years, composed entirely of ladies.

THE GRAND TRIUMVIRATE of Chicago is to become one. That is, in plain English, the three societies there are all going to show their good sense by uniting their strength into one organization.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—A regular meeting of the Society was held on Wednesday evening, February

3, 1886, with the President, Mr. Frederic Graff, in the Chair.

Lieutenant Ira MacNutt, U. S. A., was elected to active membership in the Society.

The Exhibition Committee reported that Messrs. W. H. Jackson & Co., of Denver, Col., had presented to the Society two pictures, with their frames, which had formed part of their exhibit at the late Exhibition, the pictures to be selected by the Committee, and also that Mr. A. H. Emerson, B.A.M.B., of Southwold, Suffolk, England; and Lieut.-Col. J. Waterhouse, B.S. of the Survey of India Office, Calcutta, India, had presented their entire exhibits to the Society.

The paper for the evening on "Enlarged Reproduction," by Mr. George H. Croughton, was read by Mr. Galloway C. Morris, Mr. Croughton being unavoidably absent. The paper was listened to with great interest by the members.

Mr. Pancoast asked what difference in the result there would be if, instead of using an enlarged transparency, one made by contact was used, an enlarged negative being made from it.

Mr. Carbutt said the result would be as good if the negative was a perfect one, but there might be defects and markings on it which would not be perceptible until after enlargement, and an enlarged transparency afforded an opportunity for retouching which could not otherwise be done so readily.

Mr. Pancoast asked whether the light from the northern sky or from the direct sun passing through tissue paper gave the best results?

Mr. Carbutt recommended that the light be taken from a mirror or a white reflector placed outside a window and reflecting into the camera either sunlight or that from the sky.

Mr. Pancoast showed a new and ingenious exposing shutter, designed and constructed by himself. It was intended for use behind the lens, the opening being in a rotating disk, revolving between two circular plates. The power was obtained from a coiled watch spring, and could be regulated to give any required speed by tightening or loosening the coils of the spring. By an ingenious contrivance the shutter could be used for time exposure, one motion of the pneumatic

release uncovering the lens, and a second one closing it.

Mr. Carbutt showed some excellent prints of portraits which had been sent him by a native photographer in Bombay, India, Mr. Nursoo Poopal, made from plates prepared by him.

Adjourned.

ROBERT S. REDFIELD,
Secretary.

THE Philadelphia Amateur Photographic Club met February 15th.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

"PROFESSIONAL reading of character from photographs," is announced as "a new industry" in England. Funny! Prof. Willis, an ex-photographer, has been doing that for many years in this country, and now holds forth at pleasant quarters on Broadway, this city.

THE January meetings of the foreign societies have been devoted to the election of officers, annual reports, and lantern shows. We hope for some good points from them soon.

At the Dundee and East of Scotland Photographic Association, Dr. J. K. Tulloch read a paper on "Exhibition Photographs." Among other good things he said, he "thought amateurs should let platemaking alone, and turn their attention more to the artistic than to the chemical aspect of photography." He was also of the opinion that the production of perfect negatives should be aimed at, so that manipulation or dodging during the printing would be rendered unnecessary; and as this part of the process would then become purely mechanical, it might be left to others to do.

At a recent meeting of the Edinburgh Photographic Society, Prof. C. Piazzi Smyth exhibited a number of American photographs. Among them were views of "The Explosion at Flood Rock," and of "The Yacht Genesta," which the learned astronomer said were taken by Edward L. Wilson, etc. In this, however, he was in error. The pictures were generously sent at

our suggestion, by Messrs. E. & H. T. Anthony & Co. They are of very large size and were made on Stanley plates. Excellent examples of photography as well. They were much admired by our Scotch co-workers.

MR. ANDREW PRINGLE is trying to incite the British amateurs to an annual convention. It is only a question of time, when such "meets" as he proposes will be the fashion all over. They will be most enjoyable too, as the annual excursions of the Photographic Society of Philadelphia have proven.

THE January photographic exhibition in Sheffield, Eng., was a great success. The beauties of the iron city were largely shadowed at the exhibition.

THEY are producing some shockingly bad results by means of "process printing"—*new* processes—in England now. An example in the *News* of January 22d, is simply execrable. "Mechanical prints" in our possession fifteen years old are far better.

EVERY large bank in this country employs a day watchman. We suggest that all such officers be supplied with a "vest camera," with instructions to photograph every one who presents a check for payment. Then a dark-room in the crypt of each bank, a printing-room on the roof, and an album in the office of the cashier will follow.

THERE were 158 rainy days in London, during 1885. One more figure and the whole year would have been wet.

THE establishment of examining dark-rooms at the Continental Custom-Houses, has revealed an unsuspected system of smuggling—cigars in dry plate boxes.

PHOTOGRAPHS of criminals at the whipping-post, murderers on the gallows, and political prisoners about to be shot, are the latest exposures of our "science."

PHOTOGRAPHIC work is successfully continued at the Paris Observatory by MM. Paul and Prosper Henry. One of their best productions is a photograph of the fine

cluster in Perseus, showing stars down to the thirteenth magnitude. The copies are on a scale of five inches to a degree, and contain five hundred and nine stars.

A PHOTOGRAPHIC atlas of the stars of the southern hemisphere is about to be made under the supervision of Dr. Gill, Astronomer-Royal at the Cape of Good Hope, by Mr C. Ray Woods.

THERE is reported in the *Journal of the American Chemical Society*, a case of spontaneous decomposition of explosive gelatine. This substance is largely used for blasting, and its tendency to decomposition should be widely known.

PAPER bottles made in Paris are cemented with alum, lime, and albumen. These bottles are not affected by water or alcohol, and, as they are not easily broken, may, in some circumstances, be valuable.

It is said that there is nothing better for fastening labels to tin surfaces than white of egg mixed with an equal part of water. When dry, a hot iron must be carried quickly over the surface of the label, which renders the cement insoluble in water.

AT the London Photographic Society, Mr. F. Ince read a paper on "cardboard as a support for the sensitized gelatine film." In collaboration with Mr. Addenbrooke he has slightly modified this process. For the development, ammoniacal pyrogallie acid is used with a small quantity of sulphite of soda. After development and fixing, the film is separated from the board and placed on an ebonite surface to dry. A very small quantity of chloride of gold is added to the fixing-bath so as to obtain an image of a darker color. It is preferable not to put the alum in the fixing-bath; but the separated film is placed for a short time in wood-spirit, which causes it to return to its original size (for the film has stretched one-fourth during the washing). It is after being treated with the methylic alcohol (wood-spirit) that the film is placed on the ebonite surface to dry. After desiccation it is detached, and presents a smooth surface with a glassy appearance, and is in good condition for printing positives. The whole method in our next.

DR. PHIPSON, in the *Paris Moniteur*, says: "The experiments of Mr. Macdougall, mentioned in the last number of the *Moniteur*, in which this chemist shows the presence of hyposulphite in the paper, even after a long washing, by means of Marsh's apparatus, cause us to believe that the hyposulphite of soda combines in small quantity with the ligneous fibre, as do mordants and the colors used in dyeing. If this be so, it will, no doubt, be impossible to remove entirely the last traces of hyposulphite by a washing in pure water. It would require the intervention of some reagent, such as a trace of sulphuric or nitric acid."

At the Birbeck Institute at London, Mr. C. Jones has given a lecture on light; we note the following facts mentioned by the learned professor concerning the history of the art of photography:

"In the year 1727, J. H. Schulze made reproductions of writing upon a surface of chalk wet with a solution of nitrate of silver; and in 1797, Mr. Brougham (who later became Lord Brougham) used ivory in

place of the chalk, and obtained images in a camera pierced with a hole. The Royal Society of London refused to publish the experiments of Lord Brougham, and showed itself, in other cases, relatively blind to the importance of the first investigations in photography. It shut its ears to Niepce, in 1827, and thus drove from our soil the results of his investigations, which, better observed and better understood at the Academy of Sciences of Paris, were developed into the art of the daguerrotype. As far back as 1802, Wedgwood's son, in coöperation with the chemist Sir Humphry Davy, obtained images by means of the salts of silver, but he did not know how to fix them. The use of hyposulphite dates back only to the year 1819."

Let us add that the name of the illustrious Francis Arago will always be mentioned in the history of photographic art (Report to the Academy of Sciences on the Daguerre process), as well as that of Sir John Herschel, who used hyposulphite of soda, and that of Talbot, who substituted paper for the metal plate.—DR. PHIPSON.

Editor's Table.

THE "STAMP" PORTRAIT DISPUTE.—We have been burdened with a good deal of correspondence lately in this matter, and have declined to advertise "stamps" for the present. The matter stands, as we gather, in a nutshell, thus: The dispute as to priority of invention between Messrs. KUHN and HULBURT, in St. Louis, has been decided by the Commissioner of Patents in favor of Mr. KUHN. Mr. HULBURT has obtained a patent for "burnishing" stamp portraits, and Mr. KUHN is yet busied perfecting his patent which he expects to secure presently, and antedate all others upon the strength of the decision made. If necessary to our readers we will presently give more details. It is their due, now, that they should be this far informed.

THE Argentic Dry Plate is an acknowledged success. We shall report our personal experiments in our next. A correspondent in Tennessee, like many others, evidently saw its advantages at once. He says: "I am very much

interested in the Argentic Dry Plate. I have a good many calls for ferrotypes, but am advised by photographers not to learn to make them, and I've been wondering if these will not take their place to some degree. Persons come from a long distance sometimes, don't want but one picture, and want it right away. One photograph costs too much, besides having to wait for it." That's it exactly. Messrs. A. M. COLLINS, SON & Co. are preparing to supply some beautiful mats, stands, easels, etc., for furnishing the new picture, and to help make them attractive to the public.

MR. D. HOVEY, the well-known albumen paper manufacturer died at his home at Rochester, N. Y., Tuesday, February 9th.

DOUGLAS HOVEY was born in Hampton, Conn., February 22, 1828. When he was eight years of age, he removed with his parents to Grandville, Ohio, and resided in that place until he was twenty-one years of age. He then went to

Philadelphia and engaged in the photographic business with S. Root, now of Dubuque, Iowa. Mr. HOVEY came to Rochester in 1854, and opened a photographic gallery at 118 East Main Street, in company with Mr. HARTMAN. Afterwards he commenced the manufacture of albumenized paper, and has been engaged in that business for the past twenty years. At the time of his death he was the senior partner in the AMERICAN ALBUMEN PAPER COMPANY.—*Rochester Herald*.

THE IOWA CITY DRY PLATE CO., Iowa City, Iowa, are now under full headway at new and enlarged works. We learn of the opening just as we close for press, through a two-column description in the *Republican*, from which we hope to gather some interesting details for our next issue. Much success always to such excellent manufactures as we have proven the Iowa City Plates to be.

"A PHOTOGRAPH BY MOONLIGHT," has been best done, so far as we have seen, by Mr. H. BUTLER, Vermillion, Dakota, who has sent us a 5 x 8 snow landscape with a red-brick school-house and other buildings, trees, woodpiles, &c., which is far better than many a sunlight view we have seen. The exposure was two nights before full moon, at 15° below zero, with a No. 5 Behmke lens; next to the smallest diaphragm; St. Louis plate. Altogether, it is a remarkable view, but Mr. BUTLER avers he will excel it next moon.

THE officership of the P. A. of A. was photographed during the recent visit to St. Louis, and as a result a fine 10 x 12 collection of heads stands before us, which includes MESSRS. CRAMER, BENECKE, CLARK, McMICHAEL, POTTER, and CARLISLE. The likenesses are excellent. The picture was made at Mr. CRAMER's studio, and is handsomely mounted.

MESSRS. SWEET, WALLACH & Co., have succeeded DOUGLASS, THOMPSON & Co., at No. 229 & 231 State Street, Chicago, and we presume they will presently speak for themselves through the best mouthpiece there is, our advertising pages. Meanwhile we bespeak for them a continuance of the patronage which has always flocked to "old 229 & 231," and wish them well. Mr. THOMPSON and many of the old-firm employees remain.

"THREE KINGS" is the new brand of albumen paper offered by BUCHANAN, SMEDLEY & BROM-

LEY, 25 N. 7th Street Philadelphia. "Every sheet in every ream is perfect," is their declaration. Prove it, by giving either "Vio-Pensee" or "Pearl-Email" a trial.

THE *Year Book of Photography*, 1886, and the *British Journal Almanac*, 1886, are now in hand, fifty cents each. We mail the two to one address for seventy-five cents. Quantity limited and going fast. *Mosaics*, 1886, is about all gone. We have only fifty-six copies left and going, and more gone every day.

THE I. C. DRY PLATE CO. write "We have just completed one of the best and largest dry plate factories in the country, and shall put out plates, that, in every desirable quality, cannot be excelled.

THE chemicals made by CHARLES COOPER & Co., New York, are gaining a wonderful reputation. Our best dry-plate makers use their nitrate of silver for emulsion; our highest-toned portraitists go to them for their pyro and oxalate, and their general photo-chemicals are unequalled for quality. Ask for Cooper's chemicals if you wish the purely good.

Mr. GEORGE MURPHY, of the "Eagle" Stock House, No. 250 Mercer Street, New York, finds his trade spreading as do the wings of the patriotic bird of freedom after which his depot is named. Mr. MURPHY advertises some specialties this month. He is an enterprising dealer who serves well and promptly.

INGERSOLL, the St. Paul, Minn., photo-artist, sends us a copy of the *Pioneer Press* lavishly illustrated from portraits, carnival and coasting scenes photographed by him. He has been given the exclusive right to photograph the carnival.

Mr. G. A. DOUGLASS, so well known in the West, that an introduction would be superfluous in any studio, has opened a new supply establishment at No. 185 & 187 Wabash Avenue, Chicago, where his old friends are sure to find him. His stock of goods is entirely new; it was personally selected early in February, and is of the choicest. Mr. DOUGLASS has always been one of the most unselfish and indefatigable workers for the welfare of photographers, and is entitled to a large share of their patronage. We predict that he will promptly receive it, and give him our best wishes. The style of the firm

is GAYTON A. DOUGLASS & Co. Mr. DOUGLASS' son is to be one of his helpers.

See elsewhere what he has to say for himself.

THE Photographic Merchants' Board of Trade held their annual meeting in this city Tuesday and Wednesday, February 9th and 10th. There was a large attendance, and much important business for the good and business health of the whole fraternity was transacted. The meetings were extremely harmonious, and the rubbing together of the members seemed to do much good.

Mr. G. GENNERT's Supply Establishment, 54 East 10th Street, New York. If "cleanliness is indeed next to godliness" and godliness is goodness, then the goods which come from this establishment must be extra good, for it is the neatest, cleanest bazaar of its kind. Mr. GENNERT is one of our most enterprising dealers as well, and always up to the latest and best. You will see his sign facing toward Broadway, diagonally, as you go up or down. It is only a few steps from our great thoroughfare, and four blocks from our new office.

ITEMS OF NEWS.—ANDREW PRINGLE, ESQ., the well-known Scotch photographer, gave an illustrated lecture to the Edinburgh Photographic Society, Jan. 27th, on "The Life, Land, and Lyrics of Robert Burns." It was a brilliant success. We were honored with a complimentary ticket. The *Scranton Times* devotes almost half a column to the praise of Mr. EMIL FREY, the favorite photographer of that city. Good—Estampas Fotograficas por la eno dica suma, \$3.00 per hundred, are made in 5th Avenue by a Spanish company.

Mr. E. J. KILDARE, Guatemala, S. A., will please have our thanks for his courtesy. He is an enterprising photographer, sure.

MESSRS. ADT & BRO., Waterbury, Conn., have pleased us and made us laugh by their series of pictures illustrating the life of the cheerful and comic newsboy. "Counting Papers;" "Crying the News;" "Asleep at his Post;" and other similar scenes are depicted, and are technically excellent in every way.

INSTANTANEOUS marine views are a specialty with Mr. H. S. WYERS, Yonkers, N. Y., who has sent us a series of very pretty ones, well caught, just at the right instant. Among the best are "A Message from the Sea," "An Ocean Sym-

phony," and "Toilers of the Sea," the last with men and boys "hauling in" a boat.

THE new Eastman paper is technically called the "Permanent Bromide Paper," and not, as dubbed by Mr. CROUGHTON and others, "Gelatine Bromide Paper," for the last is a different article. Please get the name right.

THE Camera Club, of Hartford, Conn., holds its annual exhibition on Friday and Saturday, February 26th and 27th, from eleven to six o'clock. Some fine pictures are anticipated.

OUR semi-monthly issue has met with great acceptance among our subscribers. The list of renewals from each State is quite equal to last year and many new subscribers have flocked to our stand, and we hardly expected success assured so soon, but we are ready for any amount of it, and are ready to give back good and more good in proportion to our encouragement. Testimonials have come to us in abundance. Thanks, good friends—much thanks.

"THE finest flattery is to imitate," and so, already, the excellent Suter lenses are being imitated. Read well the caution of the only American agents, MESSRS. ALLEN BROS.

FROM our old home comes this, from Mr. GEORGE W. CHILD's paper, the *Ledger and Transcript*, dated Philadelphia, Friday, January 29, 1886. "THE PHILADELPHIA PHOTOGRAPHER opened its twenty-third year in January by two important changes. Its office has been removed to New York city, and it is now issued semi monthly instead of monthly. Its editor, Mr. EDWARD L. WILSON, who has been an indefatigable worker in matters photographic, is now freed from other occupations and gives his whole time to this admirable magazine. The illustrations in the numbers issued at the beginning of each month are to be photographs, while the middle-month numbers will contain examples of some of the numerous processes of mechanical printing based upon photography. Several new contributors are announced, and the publication of a series of articles on art, and another on "Home Photography," has been begun. There is no more useful or entertaining specialty magazine than the PHILADELPHIA PHOTOGRAPHER, and, though it has removed to New York, it carries its name and its editor with it, and the latter may be relied upon to maintain its well-earned reputation for honest enterprise."

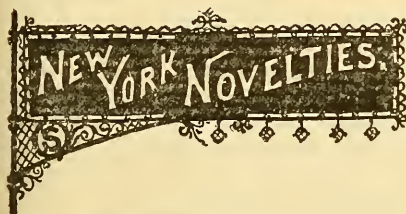
Such good words we are glad to show from such a source.

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25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



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ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers 392 Bowery, or 487 Eighth Avenue.

I AM pleased to inform my friends that I have secured commodious quarters for a stock of photographic merchandise, and shall be ready in a very short time to serve them.

I attended the meeting of the Photographic Merchants' Board of Trade in New York, on the 9th instant, during which time I selected fresh goods and made immediate shipments. A full line of amateur outfits will be furnished.

Dr. John Nicol will locate his office with us, and will be at the service of all requiring photographic information.

Asking your indulgence for the short delay necessary in arranging a new business, I desire your patronage, and shall be pleased to see you at our warerooms.

Yours truly,
GAYTON A. DOUGLASS

CHICAGO, February, 1886.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises. Address

LEON VAN LOO,
148 W. Fourth Street,
Cincinnati, O.

PHOTOGRAPHER WANTED.—Must thoroughly understand working with dry plates, and have the best of reference as to character and ability. Apply by letter to Moss Engraving Co., 535 Pearl Street, New York.

EVERY photographer in want of excellent lenses, for *any purpose*, will best serve his interest by consulting the new illustrated price-list of Messrs. BENJAMIN FRENCH & Co. before purchasing.

CARD TO THE PUBLIC.

THE undersigned, referring to the circular from Mr. Edward L. Wilson, published herewith, ask your attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at the above address.

With the most extensive and costly apparatus ever employed in such work, a splendidly accoutred studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

For amateurs we instruct in the art, develop plates, print, and finish.

For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France, and England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

The Centennial Exhibition, 1876, the New

Orleans Exposition, 1884-85, a fine and new series of "The Sunny South," and a large miscellaneous collection of comics, portraits and views.

Foreign and American slides supplied for Mr. Wilson's celebrated *Lantern Journeys*, described in volumes 1, 2, and 3.

Agents for Wilson's *Lantern Journeys*, and other publications.

Stereoscopic and Imperial (8 x 10) views of the above-named subjects promptly supplied.

Soliciting your patronage, and believing we can maintain the world-wide reputation of our predecessor, we are

Truly yours,

ROBERTS & FELLOWS,
1125 Chestnut Street.

PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employés, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON.

PHILADELPHIA, Jan. 1, 1886.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

WATERTOWN, July 13, 1885.

MESSRS. E. & H. T. ANTHONY & CO.

I had always used the ——— plates, but when his factory stopped was obliged to try Stanley's.

I am much pleased with the result. They are the best quick plates for giving fine chemical effect with good density that I have ever used, and the latitude of exposure is so great that I have not had an overexposed plate since I used them; on the other hand, not a single plate was underexposed.

The 8 x 10 Novel Camera and the 8 x 10 Dallmeyer Rapid Rectilinear Lens I recently got from you, give the best of satisfaction.

Yours truly,

C. S. HART.

Send on the plates at once, as I am nearly out of Stanleys.

ALEXANDRIA BAY, Oct. 21, 1885.

MR. E. ANTHONY.

DEAR SIR: I took your advice and started with Stanley plates, and from that time to this I have not used any other, and shall continue to use them until I can find something better.

I could show you a number of letters ordering duplicates, and giving great praise to the brilliancy of the views sent. I shall send you a view of the steamer Maud running full headway, while I was on the steamer St. Lawrence going the opposite way, and also one of the steamer St. Lawrence I made from the land while she was going seventeen miles an hour. I made them with the Prosch Shutter attached to the Platyscope lens.

I must say that Stanley plates have helped me out of many a difficulty this summer.

I might add that the only paper I use for all my work is the new N. P. A. Pensé.

Respectfully,

A. C. MCINTYRE.

ONE MORE WORD.

FELLOW PHOTOGRAPHERS, the war is raging here over prices. I have fought it from the first to last, and am still fighting, and mean to fight, although I am alone in it here, the others being below me in price. I am now looking for work. It is no great thing for one or more men so to work as to turn the tide of trade if they only seek the touchstone of success, namely, appeal to the selfishness of the people, and it is done.

Now I do not come begging, for I hate a beggar when he could be otherwise, but I do come to you and ask you if you will help me fight cheap-Johnism in photography by giving me

some orders for backgrounds, or free hand crayons. I will do crayons for you at half price—that is half what I get from the public, and make them satisfactory to you or no pay.

I know friend Frank Brown will excuse me for doing backgrounds for the trade, when he knows why I have gone into it in opposition to him, after what he has done to make a scene-painter of me. But photography is sinking every day in the estimation of the public because of cheap-Johnism, and we have got to fight in this little town, in that large town, in that large city, in fact everywhere, very soon, as a good many of you have done already.

As I said before, my custom has decreased because I stand out for conscientious work and prices that go with it. Will you who have photography at heart give me a lift by keeping me in the fight, and not let me go down to those cheap Johns who are working for half of what I get for work of the same size. If I go, it will be from necessity, while a few orders for backgrounds will put new life into me to fight for conscientious work here and everywhere. I will warrant you that you shall not be cheated. Other trades and even professions are forming a bulwark for protection; even the medical profession is feeling the necessity of more unity among themselves to bring to terms those who cut rates so it is almost impossible to live. The physicians of this town have entered into such an agreement while poor photography is regulated by cheap John, and there is no getting away from it.

I bless friend Wilson for what he has done for me and the good he has done photography. Knowing him as I do in regard to the advancement of photography, I have penned this to you, knowing he will publish it where it will be seen by those desirous of seeing photography not sunk to the level of the hod-carrier or shoe-black, as cheap Johns are forcing it every day.

M. H. ALBEE.

MARLBORO, MASS.

AUSTRALIA.

OPERATOR.—Wanted undoubted first-class operator, capable of producing high-class work and throwing art into a negative, for a leading gallery in Sydney, New South Wales. Applicants must be well up in wet and dry plates and the work of the dark-room, and must have been engaged in a leading New York or other good gallery in the States. Leaning towards man capable of retouching. Outward passage paid from San Francisco. Good salary to a competent man; applicants to state age, and give full particulars as to qualifications, and

where experience gained. Applications, together with specimens of unmounted prints of all classes of the applicant's own work, along with photograph of self, to be sent under cover to "Australia," care of E. L. Wilson, Esq., 1125 Chestnut Street, Philadelphia, from whom further particulars may be obtained. Only men whose character will stand the test of inquiry will be dealt with; waste of time for second-rate men to apply.

WILSON'S PHOTOGRAPHICS, fifth thousand, a splendid present.

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The new book by E. Long, on the art of making portraits in crayon on solar enlargements, covers the entire ground, and is sold for the low price of fifty cents. For sale by

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As printer and toner, and to make himself useful. Address G. C. Haugh, 307 Huron Street, Akron, Ohio.

By an experienced printer, after April 1st. Salary \$20 per week. Address Printer, 402 Upper Seventh Street, Evansville, Ind.

By a young man, as crayon and pastelle artist. Can also retouch. Has had some experience in gallery. Address Box 304, Morris, Ill.

By an A 1 photographer. Well versed in all branches except retouching. Address A, care of George Murphy, 250 Mercer Street, New York.

By a young man of six years' experience as printer or toner or to take charge of printing-room. Can bring best of reference. Address C. E., Newark Post Office, Newark, N. J.

By a young man of good habits, as printer and toner, or general assistant. Has had some experience. Salary moderate. Address J. H. Edson, West Randolph, Vermont.

In a thoroughly reliable gallery as operator. At present with Gilbert & Bacon. Best of reference as to ability and character. Address Alvin F. Bradley, care Gilbert & Bacon, 40 North Eighth Street, Philadelphia.

Permanently, by a first-class retoucher of good habits, who can assist in all branches of the art. Can give best of reference. Address William Kesten, 130 Third Street, Milwaukee, Wis.

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2 " 4×5 , " .	1 25	2 " $6\frac{1}{2} \times 8\frac{1}{2}$, " .	3 75
2 " $4\frac{1}{4} \times 5\frac{1}{2}$, " .	1 50	2 " 7×10 , " .	4 00
2 " $4\frac{1}{4} \times 6\frac{1}{2}$, " .	1 80	2 " 8×10 , " .	4 50
2 " 5×7 , " .	2 00	1 " 10×14 , " .	4 00

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AND

AMERICAN PHOTOGRAPHER.

ANNOUNCEMENTS

OF THE PHOTOGRAPHIC TIMES FOR 1886.

For the year 1886 we have made arrangements to publish in THE PHOTOGRAPHIC TIMES, articles written expressly for this journal by the following well-known Photographic writers :

Capt. W. De W. ABNEY, of England.	ANDREW PRINGLE, of Scotland.
W. M. ASHMAN, " "	ARNOLD SPILLER, of England.
W. K. BURTON, " "	G. WATMOUGH WEBSTER, of England.
W. E. DEBENHAM, " "	Dr. H. W. VOGEL, of Berlin.
CHARLES SCOLIK, of Vienna.	

Mr. H. P. ROBINSON, of Tunbridge Wells, will supply a series of articles on Landscape Photography. Of our American contributors we announce the following names :

Prof. H. D. GARRISON,	Rev. G. M. SEARLE,
Prof. S. W. BURNHAM,	C. W. CANFIELD,
GAYTON A. DOUGLASS,	P. C. DUCHOCHOIS,
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GUSTAV CRAMER,	H. EDWARDS-FICKEN,
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CHARLES WAGER HULL,	A. MORENO,
FREDERICK A. JACKSON,	C. W. DEAN,
ISAAC PAXTON,	Dr. O. G. MASON.
Prof. RANDALL SPAULDING,	

The above is in addition to our regular Editorial staff, and many additions will be made to the list.

Subscriptions: Weekly, \$3.00 per year. Monthly, \$2.00 per year.

There may be some who are not fully aware of the growth of our journal ; to such an offer is made of a month's trial (four weeks) for 30 cents.

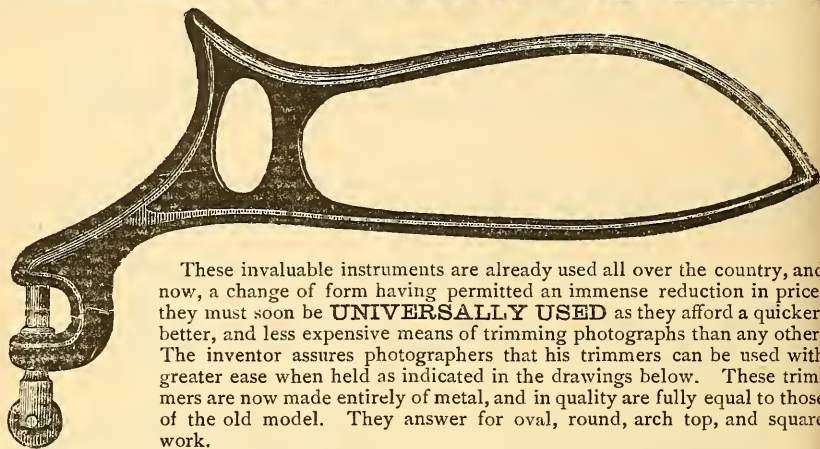
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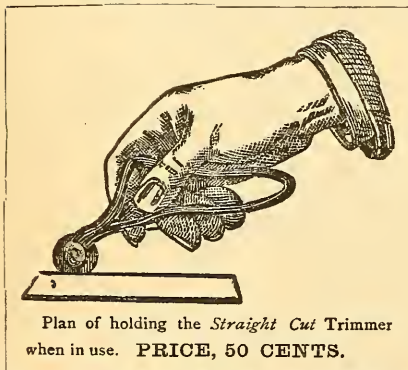
720 (5 gross) of these trimmers were sold to one party in July.

ROBINSON'S NEW MODEL PHOTOGRAPH TRIMMERS!

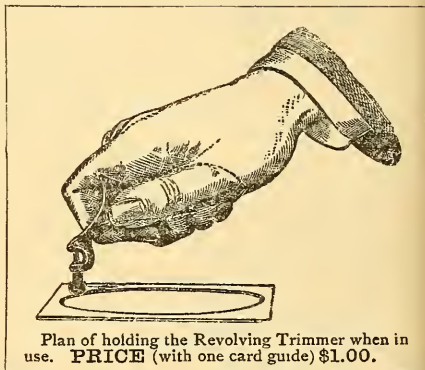
This drawing is of the full natural size and shape of the New Model Revolving Trimmer. The *Straight Cut* is of same size, varying but little in shape.



These invaluable instruments are already used all over the country, and now, a change of form having permitted an immense reduction in price, they must soon be **UNIVERSALLY USED** as they afford a quicker, better, and less expensive means of trimming photographs than any other. The inventor assures photographers that his trimmers can be used with greater ease when held as indicated in the drawings below. These trimmers are now made entirely of metal, and in quality are fully equal to those of the old model. They answer for oval, round, arch top, and square work.



Plan of holding the *Straight Cut* Trimmer when in use. PRICE, 50 CENTS.



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2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	3 $\frac{1}{2}$ x 4 $\frac{3}{8}$	5 $\frac{1}{4}$ x 7 $\frac{1}{4}$
2 x 3 $\frac{1}{4}$	3 $\frac{1}{2}$ x 4 $\frac{7}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 x 3	3 $\frac{5}{8}$ x 5 $\frac{1}{8}$	5 $\frac{3}{8}$ x 7 $\frac{3}{8}$
2 $\frac{1}{8}$ x 3 $\frac{5}{8}$	4 x 5 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 $\frac{1}{8}$ x 4 $\frac{1}{4}$	4 $\frac{1}{8}$ x 6 $\frac{3}{8}$	6 x 8

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2 $\frac{1}{8}$ x 3 $\frac{1}{4}$	2 $\frac{5}{8}$ x 3 $\frac{1}{4}$	2 $\frac{7}{8}$ x 4 $\frac{3}{8}$	4 $\frac{1}{8}$ x 5 $\frac{3}{8}$
2 $\frac{1}{8}$ x 3 $\frac{1}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	3 $\frac{7}{8}$ x 5 $\frac{1}{4}$	3 $\frac{7}{8}$ x 6
2 $\frac{5}{8}$ x 3 $\frac{1}{8}$			4 x 6 $\frac{1}{2}$

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Arch Tops.	Round Cornered.	Round.
3 $\frac{1}{8}$ x 3 $\frac{3}{8}$, 3 x 3	3 $\frac{1}{8}$ x 3 $\frac{3}{8}$, 3 x 3	3 x 3

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PHOTOGRAPHIC CHEMISTRY.

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CHAPTER VI.

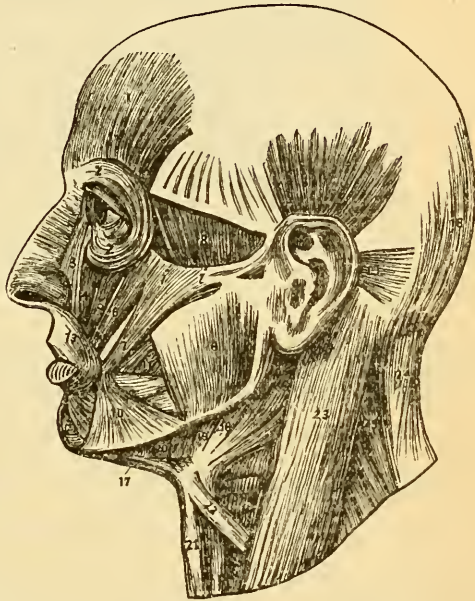
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PROCESSES.

CHAPTER VII.

PHOTOGRAPHIC ÆSTHETICS AND
PORTRAIT TECHNIQUE.

CHAPTER VIII.

PHOTOGRAPHY FOR AMATEURS



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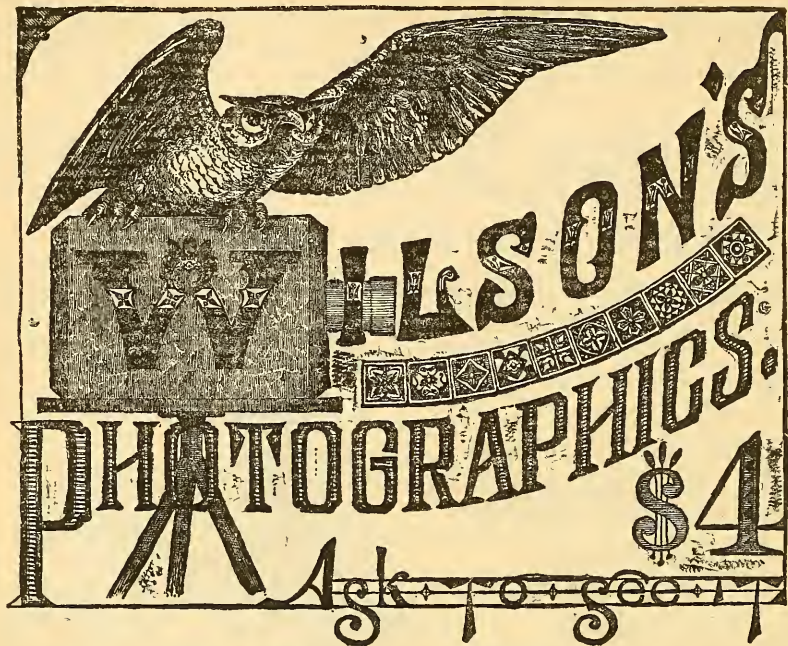
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CONTENTS.

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Prof. of Applied Chemistry in the School of Mines
Columbia College, New York City.

E. & H. T. Anthony & Co.,
591 BROADWAY
New York.

THE BULLETIN FOR 1886.

That the BULLETIN has proved a success during the past year, our long list of unsolicited testimonials bears ample witness. And we have found it utterly impossible to publish all the good things that have been said of us, owing to the wealth of material always at hand to fill our pages. What is yet more encouraging to us is the large increase in our subscription lists, on which the number of names is now almost double what it was one year ago, and is increasing with every issue of the journal.

We recall with pride the names of some of the contributors to our pages: Prof. C. F. Chandler, Ph.D., Prof. Ogden N. Rood, Dr. A. H. Elliott, Ph.D., Prof. J. M. Eder, Ph.D., Henry J. Newton, E. L. Wilson, Ph.D., L. H. Laudy, Ph.D., Victor Schumann, Prof. Chas. F. Himes, Thos. Bolas, F.C.S., M. Carey Lea, Dr. R. W. Wilcox, F. C. Beach, Dr. John H. Janeway, Prof. Spencer Newberry, A. A. Campbell Swinton, Fred. E. Ives, P. C. Roche, E. K. Hough, G. H. Loomis, J. B. Gardner, W. E. Partridge, P. C. Duchochois, J. F. Ryder, David Cooper, Abraham Bogardus, and a host of others. In addition to the contributions from the above gentlemen, we have given our readers clear and accurate reports of the photographic societies, in many cases from the stenographic notes of our own reporters. Our correspondence column has been a source of pleasure to our editors, and has become an important and unrivaled feature of our publication.

This is what we have done and shall continue to do, with this advantage, that the fund of material upon which we can draw in the future is still larger than that utilized in the past. Among other improvements we intend to illustrate every number of the BULLETIN with a specimen of the best work in both professional and amateur photography. Thus the subscribers will obtain in one year, two dozen gems of the photographic art. Various improvements in the literary part of the journal will also be made. In fact, nothing will be left undone to keep it in the front rank of American Photographic journals.

The improvements we contemplate will involve a large expenditure of money, and as we cannot be expected to furnish so much valuable material at a loss, we shall be compelled to charge three dollars for the illustrated edition of the BULLETIN, and two dollars without the illustrations. Just think of it! Twenty-four illustrations and seven hundred and sixty-eight pages of valuable photographic information for three dollars. There is not another photographic journal in America that does so much for so little. Either the illustrations alone or the literary material alone are worth the price of the subscription, and we give them both, so the subscriber gets twice the worth of his money.

We have laid out a large amount of work for the coming year, and we intend to carry it through. But to do this with energy and pleasure, we must have the encouragement of our readers and subscribers. Help us, and we will help you as much as, not more, than in the past. Our policy will always be, *With charity for all and malice towards none,*

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CARD.

The changes made in the publication office and issue of this magazine are for the purpose of pushing its cause before a larger public, that it may grow with the rapid growth of Photography. Neither labor nor expense will be spared to maintain its position as the "foremost illustrated magazine devoted exclusively to the Art."

The *letter-press* will combine a high grade of practical art literature, with abundance of varied matter, which will cause it to be read from cover to cover, not only by the Adept and the Amateur, but by the Artist as well, with the families of all.

The *embellishments* at the beginning of each month will be photographs, while the middle-month impressions will be embellished by the productions of the numerous processes which have grown from photography, such as Photogravure, Phototypy, Encaustic, Gelatine Printing, and Photo-Engraving. All will be selected with a view of teaching "How to See Pictures," and "How to Produce them according to Art-Rules."

Besides some fine portrait and landscape studies, I have arranged for a series of compositions and for a quartette of out-door photographs representing the four quarters reached by our great land, viz., "The East," by Geo. Hanmer Croughton; "The West," by H. Butler; "The North," by Edward L. Wilson; "The South," by H. L. Roberts; also "Listening to the Birds," Mr. Jno. E. Dumont's prize picture, and a twain of compositions by Mr. H. P. Robinson, the great English Art-Photographer and Author.

Three series of *art articles* are arranged for: One by Xanthus Smith, son of Russell Smith the artist; another by Geo. Hanmer Croughton, winner of many prizes, and a first-class photographer, with "Art Notes and Hints," giving still a different treatment of the subject, by the Editor. All to be fully and extensively illustrated.

Besides these, added to the well-known features of this magazine, new departments of interest are introduced. An "Open Corner," for news, notes, and discussions, will be supported by the craft. A "Question Box" is open now. The gist of all the photo. news of the world will be given. The "Society Gossip" will be elaborated and the system of reports improved. An able staff of foreign contributors will supply a series of "condensed" articles on all the branches of our art, to be assisted by the Editor's list of newly discovered men and women able to teach practically in art and art photography, whose writings are new to us. The editor will contribute a special series of papers on things he observes from time to time from his office window; through his imaginary spectacles, by reflection, with his field-glass, and by means of his camera. Reviews of art works will be a new feature. All will be pointed and practical, yet entertaining.

Thomas Pray, Jr., will contribute a series of articles for amateurs, teaching "Home Photography in all its Phases," giving the A. B. C. of "the new diversion"

The space devoted to "Queries, Conundrums, and Conclusions," "The World's Photography Focussed," "Photographic Facts and Fancies," and "The Humor of It," will give to the advocates of both the "wet" and the "dry" a fine variety of material. Dr. Vogel, H. P. Robinson, and many other French, Italian, German, and English writers will contribute to all. I add my personal care, now freed from other occupation.

The double issue makes the *Philadelphia Photographer* the lowest-priced journal of its class. No matter what others you receive, you lose if you do not take it.

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OUR PICTURE.—"The South." Negative by H. L. ROBERTS & Co., Philadelphia.
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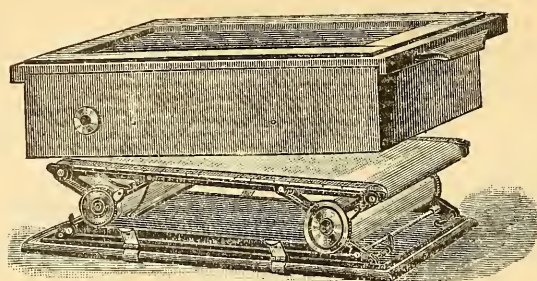
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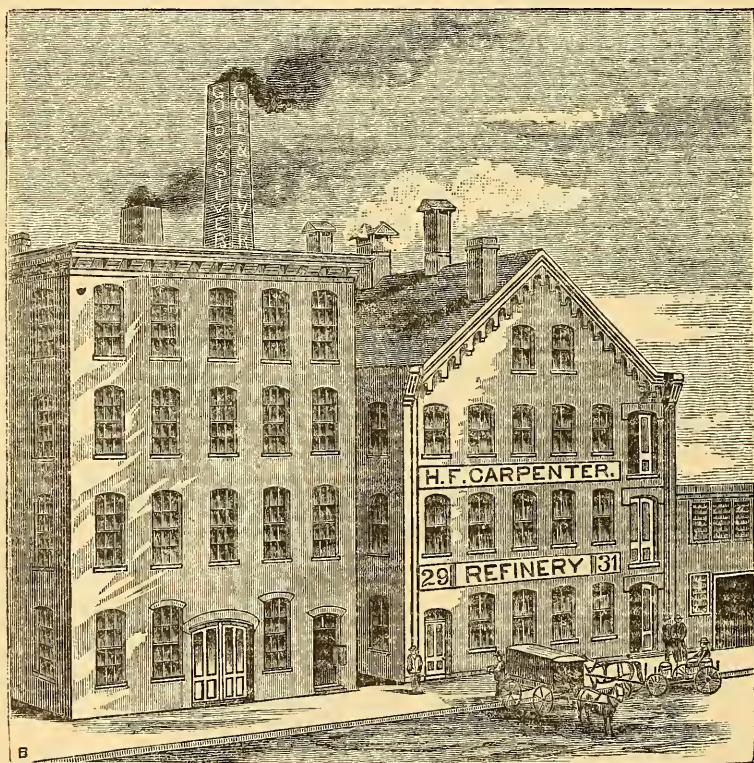
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
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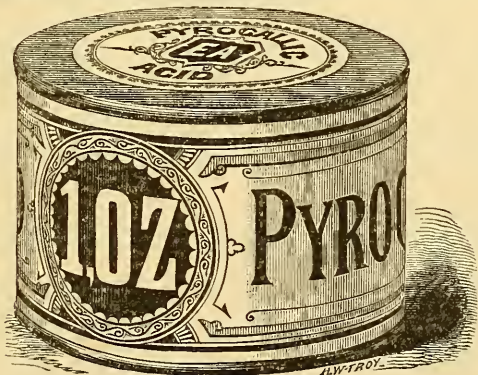
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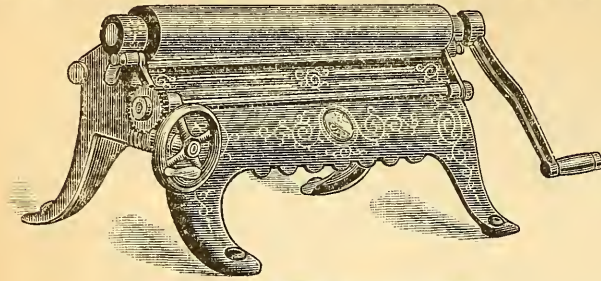
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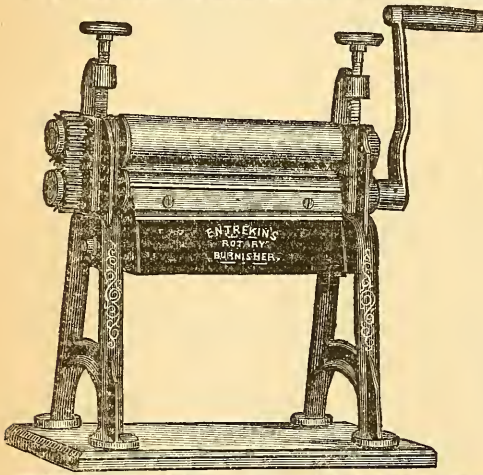
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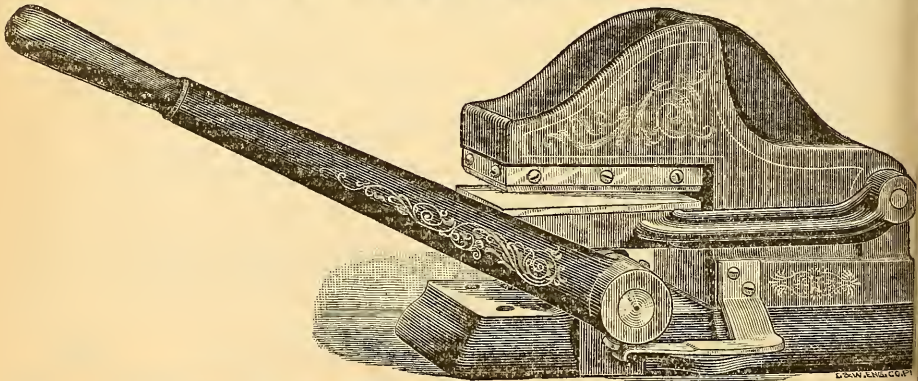
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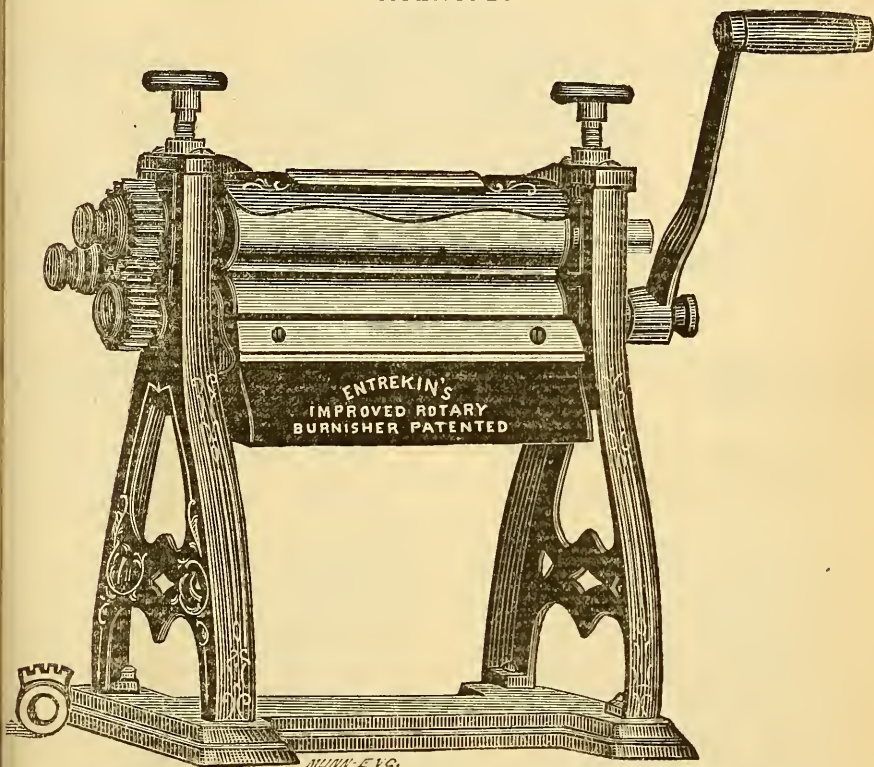
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No. 269.

RECENT PHOTOGRAPHS OF
STARS.

BY PROF. C. PIAZZI SMYTH.

FOR many years past some little amount of isolated work *has* occasionally been accomplished in photographing certain of the brighter stars. But lately, stellar photography has gone forward with leaps and bounds; so that at a dozen different observatories in Europe, America, South Africa, and Australia, so much is now being done in that line, that there is a speedy prospect of, in a manner, the whole sidereal heavens being photographed, and after a fashion that would not only have astonished Hipparchus, but been equally surprising to either Sir William Herschel, or Argelander, or Struve up to within a very few years ago.

The reason of this sudden development of astronomical photography is twofold. *First*, a remarkable improvement, amounting even to a bursting of its bonds of the previous quarter of a century, which has taken place in ordinary photography; and *second*, the accompanying circumstance, that those new methods have been found most peculiarly suited to the special requirements of the astronomer.

The new photography of the portrait gallery consists in the replacement of inflammable collodions, the silver bath with all its sicknesses, wet films, soft, slippery, contractile, and perishable, together with sensitizations which each worker had to

prepare painfully to his own hand, each time of using;—their entire replacement by dry plates, prepared by the thousand at large manufactories, ready to any one's hand, and with their bromo-iodized hard gelatine films, far more sensitive than the best wet collodion of the old silver bath preparation.

Now this enormous improvement has suited the astronomers in several ways. They were never very fond of dealing with alcohol and ether at night, or manipulating all the other dangerous, or delicate and difficult experiments in chemical laboratories in the confined space of their revolving domes. And if they did occasionally prepare "wet plates," they had to use them immediately, or lose them; while if the sky happily remained clear enough for the using, the wet plate would not remain long in its highest state of sensitiveness, or cleanliness either; for certain "oyster shell" markings, as well as "fogging," would begin to form upon it, pin-holes would multiply, and the image of a brilliant and minute point of light would begin to spread chemically in the film, until pungent star-points became, as to size, more like apples and oranges.

But the new dry plates, after very easy purchase, can be kept waiting for an opportunity, through any length of time. They admit also of any length of exposure, without losing their sensitiveness, and without

spreading the images of bright points so extravagantly as the wet films. And this ability of the dry plates generally to stand long exposures is simply invaluable in photographing faint stars; for, contrary to the human eye, which can either see such an object at once, or never (for longer looking merely fatigues the eye, and at last deprives it of all power)—the photographic dry plate goes on accumulating the effects of an at first invisible star, until by such accumulation a visible, or rather developable mark is at length made; and if five minutes are not enough to produce that effect, a quarter of an hour, half an hour, or even a whole hour may be tried.

To compass such an interval, the clock-work movement of any equatorial must of course be particularly good, and sedulously watched to keep the star images always on one spot, and prevent their being drawn out into ellipses. But this correction being applied, then the only chemical operation left with the astronomer, is the developing of the latent image on the plate; which operation, however, may be delayed with these new plates to next day, or week, or month even, if agreeable.

Now the special examples of this new stellar photography which I have to lay before the meeting, have been kindly sent to me by my friend Dr. David Gill, Astronomer-Royal at the Cape of Good Hope; and as he is not present here, but is now on the other side of the world, I need have no compunction about alluding to him as a new rising star, of the first magnitude and richest promise, appearing just now above the astronomical horizon; and by his singular genius, and surpassing success in whatever he undertakes, doing as much honor to his native city, the Granite Queen of the North, as to the Tercentenary of the Edinburgh University, where he received an honorary degree last year.

A professional photographer, with abundant supplies of apparatus and materials, was recently sent out to him, to act under his directions; and he has now accordingly begun, with that aid, the regular and systematic mapping of the whole southern sidereal heavens, seven degrees by seven degrees at a time; and the examples he has

just sent, are merely the first essays. Yet they possess already a very considerable degree of perfection; and are specially to be commended for the neatness and roundness of all their stellar disks—the long exposures notwithstanding.

The first of these interesting photographs represents, in chief, the three notable stars forming the belt of Orion, on a scale of one inch to one degree, and with an exposure of half an hour.

The second represents the same subject, but with an exposure of one hour; and a great increase will be remarked in the number of smaller and exceedingly minute stars.

The third represents, on the same scale, though with a larger field, part of the milky way near that remarkable variable γ Argüs.

While the fourth shows the instrument with which the views were obtained.

These photographs are evidently sharp enough to admit of being magnified several times linear, rendering the smaller stars more easily visible.

As the art-science now stands, and with the class of instrument used on this occasion, exceedingly pretty, *integrating* views of what can be seen, on a very small scale, of the really unfathomable depths of the starry heavens, may be obtained, and will have their own particular uses and approximate applications. But any one of these mere camera views is totally unable to *differentiate* to the terrible extent required by the higher astronomy of the present day.

In double-star work for instance, and its most important attribute of being able to demonstrate a physical connection between one star and another, amenable to the calculations of Newtonian gravitational astronomy—we ought to be enabled to divide a second of space into several parts with certainty. And for that purpose, such portion of space should be represented on a photograph by not less than one-fiftieth of an inch. But that implies, in this case, a further magnifying of not less than seventy times linear. Or the making, out of one of the photographs on the table, 4900 others, each as large as itself, to represent properly

that one very small portion of the sky. So that an atlas, to show the whole sky on the same scale, would require about five millions of them; and by no means every photograph that is taken is always a success, and worthy of being kept; while every one that is kept requires at least two companions as good as itself, to guard against accidental imitations of little stars by either pin-holes in the film, or specks in the glass plate.

And even if we should replace *that kind* of magnifying by the achromatic compound microscope—we are just as badly subject as ever to the inherent weakness of an originally small photograph, as distinguished from Nature herself further magnified, in this important truth; viz., that we do not, by simply magnifying a discolored film, separate close stars; we merely enlarge their disks, or diskous impressions. And at the rate of enlarging already indicated, such disk, or spurious photographic effect, in the case of any one of these three stars in the Belt of Orion—would swell out into a huge circle, no less than 3.5 inches in diameter! Utterly covering, concealing, or swallowing up therefore, any interesting stellar companion such star might have, though it should be 800 times as far off as the small angular distances which astronomers have to deal with.

While further still, though long exposure may bring out more stars than short exposure with the same instrument, it does not by any means enable a small telescope to compete with a large one in what *it* can show with any exposure. Photography of the stars, therefore, though begun most meritoriously with small instruments, will have to be continued afterwards in the accustomed ways of old, with larger ones. Larger ones possessing more light, and more magnifying power; but with the inevitable accompaniment of smaller angular fields of view; and in that case there will ensue a great multiplication of the sensitive plates required. Wherefore, in place of the telescopes of the future being, by photography, reduced to pocket size and minimum cost, they will rather have to be made larger than ever, and worked more expensively.

Hence it is that so able a practical astronomer as Mr. Ainslie Common, who has

been performing such wonders of astronomical photography with his grand reflecting telescope of three feet diameter of aperture, is casting about now for the erection of another telescope of seven or eight feet in diameter, or considerably larger than Lord Rosse's; infinitely more refined in its mounting, and requiring an almost uncountable number of photographic plates to represent everything it is capable of showing throughout the sky.—*Transactions of the Edinburgh Photographic Society*, February, 1886.

THE DEPARTMENT OF ART.

(Continued from page 23.)

"WHERE art begins" will make a fine addition to this department of our work.

It is a most timely paper, which we trust all of our photographic artists, and those who want to be such, will studiously read.

One of the great accusations made against photography for a long series of years is, that it is "not artistic." That antique howl has been dropped a good deal by painters of late, since they have taken our art somewhat to their æsthetic bosoms, and they are after photographic naturalism with a sharp brush.

So much so, indeed, that now we hear paintings criticized as being "too photographic."

Of course there is reason in this remark, for a painting may be "too photographic" in some respects. Both the photograph and the painting possess qualities which neither one should be allowed to lose in the effort to follow. We never want to see a painting lose its softness. We never want to see photography libel individuals as painting does. But there are certain rules in art which both can be made to follow and yet preserve their own main charms.

The aim of the photographer who is conscientious, is to produce truth, while he may improve upon nature without any loss of truth.

But as a rule, the effort of painting is to secure an approach to truth only, and that by deceiving the eye. One or two examples of the achievements of realistic painters in this direction we will notice right here: Everybody is familiar with the story of the

contest between the two Athenian painters for the palm of supremacy in the close imitation of objects. One painted a girl bearing a basket of grapes, and the fruit was so natural that the birds came and pecked at it. The other presented a framed picture over which hung a cloth. His rival hastily snatched at the cloth to see what was behind it, and found that it was painted, a mock counterfeit. He acknowledged himself vanquished, saying: "I only deceive birds, but you have deceived a painter." Without attempting to decide upon the justice of such a decision, or upon the respective merits of Zeuxis and Parrhasius, it is certain that very many painters, both of mediæval and modern times, have far surpassed the feats recorded of them both. The power of an artist who is thoroughly versed in light and shadow, and in the laws of reflected lights, to cheat the eye, is very great, much greater than is popularly believed. Many readers who come upon passages in books of travel and of criticism, where the effect upon the mind of certain famous pictures is noted, are apt to be sceptical, and to believe that the writer's imagination has run away with him. But it is positively true that at the first sight of Titian's Venuses, especially those in the Museo del Prado of Madrid, one feels a thrill of surprise that amounts almost to pain.

The sensation is exactly as if one had walked unsuspectingly into the bedroom of a duchess and seen her *in puris naturalibus*. When, indeed, one reads that a visitor was entranced before Raphael's "Madonna of the Chair," in the Pitti Palace at Florence, that the infant Jesus seemed to smile at the spectator, and the Virgin to be alive, one knows that the writer is pulling an exceedingly long bow. The picture is very badly hung in an obscure corner near a door, and there are cross lights upon it, the light coming from the side, and not from the top of the room. So that, had Raphael been a master of realization, his genius would have been lost under the circumstances. But the truth is that though Raphael could imagine faces of beauty, and could draw divinely, realization was not his forte, and his chiaroscuro and color leave much to be desired.

Every one who has visited the Luxembourg Collection will recall the painting of a bee, by a monk—so real that a ventriloquist standing near startled a crowd to running away from the painting for fear of being stung.

The most wonderful story of pictorial counterfeiting is told of Mabuse, who, being in the service of an Italian prince to whom a potentate was about to pay a formal visit, received from the major domo of the palace sufficient white cut velvet of Genoa for a magnificent suit. But, being an inveterate gambler, he risked his "livery" at dice and lost it, and painted upon thick paper a substitute which he wore when the great day arrived, to the admiration of every one. Court suits in those days were made thick, and were naturally stiff, so that the unbending character of Mabuse's suit did not cause any surprise. But he had given it such a royal sheen, such a splendid sweep of changing tint from gray to white, that the potentate was attracted by the stuff, and expressed to his host a desire to purchase some of that particular Genoese fabric. Mabuse was sent for, and had to make a full confession, which so tickled his master and his master's guest that all was forgiven, and the leak in the wayward genius's purse was stopped once more for a few days. Mabuse's pictures fairly bear out the reputation inferred in this story. They are highly realistic, although their realism is obtained by delicate touches and finished handling.

But the counterfeits of to-day are decidedly those which most interest the public. There is on Warren Street, New York, a famous lunch and liquor place, whose glory is a panel picture of large size named "After the Hunt." It is apparently painted upon a panel-door of black oak, which is draped with crimson velvet hangings standing out some way from it, so as to permit the introduction of concealed gas jets which light up the picture. These are obviously necessary, because the position of the panel is a dark one, between the forepart of the store and the immense bar and counter in the centre of the place. On the supposed panel-door is painted a hunting trophy of weapons, birds, a rabbit, a hunting horn of brass,

a drinking cup made from an ox horn, a man's hat, and above all a pendent bottle hanging by a string, which is fastened to one of the objects above. The supposed panel-door has immense rusty hinges of hammered iron, artistic in construction and of the fifteenth century in style. There is an old French wire railing partly driven into the panel, which, at a slight angle, seems to stand out an inch and a half from the door. There is a hole from which a nail has been drawn, and another nail whose head has been split by the hammer. One of the hinges, wrought in curves, has been broken and a part of it swings down from one rivet and exposes the unstained wood and a rotted rivet-hole underneath. An alpen stock with a blunted spike in the end stands out from the panel in high relief, and shows the curling of the bark from the stick. Some bits of mother of pearl, inlaid at the butt of the gun, are well colored, but the depressions whence companion scales have made their departure, are even more realistic. In the centre, upon the left-hand side, is the keyhole, with its plate of battered bronze. It is shaped like a halberdier, and is greenish in parts with age, which gives it a quaint, queer aspect. So that it looks as if some one had dug up from the entrails of the earth an ancient Toltec bronze and punched into it a keyhole.

Photography itself could not more deftly render light and shade. Men come and stand before this picture for fifteen minutes at a time, and the remarks passed upon it are curious, indeed. As a rule, city men are enraptured with it, and go into ecstasies over the feathery plumage of the birds and the furry coat of the rabbit, over the wonderful representation of the butt end of an old snaplock gun, over the extraordinary imitation of the brass work of the horn. But gentlemen from the country, and especially from Chicago and St. Louis, who see it for the first time, declare that nobody can take them in, and that the objects are real objects hung up with an intent to deceive people. A drummer from the city of sin was very angry over the obvious imposition, and wagered five dollars that the thing was not a painting. "Feel it,"

said his friend. He felt it, and found that it was a flat panel. "Well," he said, "I admit that the rabbit and the birds are painted. I ought to have seen that from the first, because, although they are wonderfully lifelike, there is a sort of yielding of the muscles in a dead thing which you don't see in this. But what got me was the hanging up of that bottle, because I could see in a moment that the string was real." The crowd behind them burst into a roar of laughter, and the drummer made a dash for the bottle, but his hands met only the flat surface of a panel. He was dumbfounded. "Gee whittakers!" at last broke from his lips, "that beats Chicago—hang me if it doesn't! I understand it now. It's all painted, frame and all, and that's what makes the illusion so perfect." There was another roar from the crowd that was taking in the scene with huge delight. The man dashed at the frame, but this time found solid wood. The frame was *not* painted.

We should like to apply our camera to this marvellous rendering of light and shade in order to share the enjoyment of it with our readers. Of course, the artist has color to help him, but we are quite confident that he was assisted in his studies of light and shade by means of photography. He could not imagine all that.

One of the artists of *Puck*, who is now, indeed, the leading artist of *Judge*, went over the way to see the marvel, and found that he could very fairly resist the artist's endeavor to cheat him, save in one particular. The keyhole did look so natural that it was hard to believe that it was not there. He looked at it in different ways; first from a front or near view, then from a side view, then from a distance, and could not make up his mind absolutely whether it was a dummy or a real object introduced to heighten the deception. At last he bethought himself of a plan. He placed his hand close to the nearest of the side-lights, and flashed a shadow upon the poor keyhole which at once showed itself to be a deception. Others who saw his manœuvres imitated him in high glee, and found that they, too, had a point upon the picture, and could prevent it from deceiving them. But this was an exceptional man, and it is safe

to say that out of the hundreds who visit the place daily, almost every one believes like the Chicago man, that the panel is a door upon which objects have been grouped to simulate a painting.

Few, if any, of De Fregger's pictures have come to this country, for he is highly prized in his native Austria, and the art dealers cannot make big commissions out of him, so they pass him by. But oleographs of two of his works have been disseminated over the whole of the United States, and many of our readers are familiar with them. One is a picture of a Vienna dandy who has got himself up in a most elaborate Tyrolese costume, according to the notions upon the subject of a Vienna fashionable tailor. Feeling in his inmost soul that he is killing in the picturesque garb of the mountaineers of Germany, but in reality looking as silly as a London cockney in the tartans of a Highlander. He is taking his coffee in a Tyrolese inn and smoking a cigarette with highborn elegance and grace, endeavoring to "mash" two Tyrolese girls, and to outshine the genuine Tyrolers who are smoking and drinking at the same table. One of the girls is guying him with the utmost innocence of air, but the other girl cannot keep from giggling, and is bending her head down to hide her laughter. The youth has just awoke to the perception that he is affording intense amusement to everyone, and his uncomfortableness has been rendered with exquisite skill. It is a splendid character study for photographers æsthetically anxious, and we commend it. It suggests some good ideas in posing as well as the other well-known picture by the same artist. It is a dancing scene, where a muscular, sinewy Tyroler welcomes the arrival of two belles (the identical ones of the other picture) by an improvisation of a dance not unlike a Scotch strathspey. De Fregger lives in his beloved Tyrol, and all artists who visit Germany from every land go and pay him the courtesy of a call. Outside his chalet his magnificent gold watch and chain hang suspended from a nail. The visitor's first thought is that De Fregger has done this to manifest his sense of the honesty of his compatriots. Then comes the reflection that perhaps

he has forgotten it, having the oblivious faculty of all men who concentrate themselves on a single object. Ignorant of the fact that the driver of the vehicle and the loungers are keenly watching him, the visitor often goes to take the watch and carry it to its master, but finds, like the Chicago drummer in Warren Street, that it is a beautiful bit of artistic counterfeiting, and is, in fact, the artist's sign. As a rule, those who have been caught pretend the contrary, and De Fregger accepts their criticisms with the utmost *bon homme*, being satisfied that he will hear the truth from some witness very speedily. The Tyroleans are exceedingly proud of De Fregger's sign, and say that it has never failed to catch every visitor. It is even more realistic than a photograph, for it has the color to add to the delusion.

There is another picture on exhibition here which is even more suggestive to portrait photographers than the other. It is in John Street, in the store of a diamond merchant and jeweller. It is an immense picture of a Russian wedding in the seventeenth century, and is an admirable example of strong realization of a higher kind. A number of men and women dressed in the most magnificent costumes are seated at a long table enjoying the long drawn-out delights of an apparently interminable feast. The moment chosen is when the young husband receives from the family nurse the bride whose face he has never seen, and in an agony of rapture withdraws the wrappings from a face and form of exquisite beauty. Everything is of life size, and the artist, though he has reproduced with the utmost fidelity the accessories of superb coats and robes, head-dresses of pearls and gold, damask cloths, gold and silver plate jewelled drinking-cups, and so on, has reserved his main strength for the heads which have a life-like character very seldom seen in these degenerate days, when, as an art critic in the *Star* puts it, "portraiture is ruined as a fine art by photography." His greatest success is in the hair and the heads of the men, but all the faces are instinct with life and full of expression as those of the women are the most beautiful, and have that sleepy, dangerous languor

of the eye that tells of Tartar blood and hidden amorous fire. The artist has made no effort to make his faces other than what he saw in his native land, and accordingly some of the men's heads appall the spectator by the frankness with which they reveal the characters of the men. There is an old voluptuary, who is Sir John Falstaff in person, and there is a redheaded individual at the end of the picture, whose scowling forehead makes him a Russian type of Judas Iscariot.

There is a vein of humor in the picture, too, which is chiefly borne by the waiter, who, with the roasted repast held high over his head upon a platter, turns to some one who has either jostled or crowded him, with a scowl of importance which is keenly ludicrous. It is a grand study and should be seen over and over again to be clearly understood.

Our *Star* critic again says: "The picture is a revelation, and shows how wrong those artists have been who have taken their cues from photography. Midowski, who painted this picture, has either studied deeply Rubens and Giordano, or has within himself the self-same fire that animated them."

Some critics are again making a great hullabaloo about some paintings which "artists" would call "too photographic." But such are grand productions, as we can testify from personal inspection.

We have followed this line in our present paper to encourage the artist photographer by showing how he is unconsciously influencing the painter, and how both arts, though possessing their individual powers, are yet kindred—are growing closer and their aims are alike—to give pleasure and to refine while they please. Next time, something about "lines."

CARDBOARD SUPPORT FOR EMULSION FILMS.

M. THIÉBAUT'S INVENTION.*

We have to bring before your notice this evening a new gelatino-bromide process brought out by M. Thiébaud, of Paris. The chief difference between this emulsion and

others in the market lies in the fact that it is spread on cardboard; the cardboard is first enamelled, which enables emulsion to be spread over it evenly, and to adhere thereto with sufficient tenacity to enable it to bear the ordinary processes of exposure, development, fixing, and washing with impunity. After these processes have been gone through, the emulsion remaining on the cardboard can be detached therefrom, and the photograph is then left on a clean, perfectly transparent, and tough sheet of gelatine, from which prints can be taken from *either* side. Thus the weight of glass, the chance of breaking, and imperfections arising from a process in which a paper base has to be made transparent, are avoided. M. Thiébaud's pellicular cards, with which we experimented, were kindly handed to us for this purpose by Messrs. Watson & Sons, of 313 High Holborn, from whom they can be procured. We find them very light to work as compared with glass; that they are rapid in action (as rapid as ordinary commercial rapid plates), and that for transparency and sharpness the pictures which we produced were all that could be desired. The pellicular cards being stiff, can be placed in the ordinary dark backs, no new apparatus being required for them, it only being necessary to avoid too strong pressure by the springs. M. Thiébaud claims for them the advantage that 100 cards weigh the same, and are about the same volume, as one dozen glass plates, whilst a negative, when once detached from the card, weighs almost nothing (a $6\frac{1}{2} \times 4\frac{3}{4}$ negative film weighs when detached 20 grains). We hand round for inspection a piece of the enamelled cardboard ready for the emulsion, also some transparencies and negatives that have been detached. The process we adopted was as follows: After exposure we placed the card in an ordinary pyrogallie developer, made up with sulphite of soda (4 grains of sulphite to 1 of pyro), neutralized with citric acid, the ammonia solution being made of 1 oz. of ammonia to 2 ozs. of water, with 75 grs. of bromide added, or practically one-sixth proportion of bromide to ammonia. The development proceeds slowly but with great regularity, and the shadows remain remarkably clean; it is necessary to exercise patience in de-

* Read before the Photographic Society of Great Britain.

velopment if density is required, and to bear in mind the fact that the picture by reflected light looks very much denser than it turns out to be when detached; judgment in this respect is not difficult, but a few trials will be necessary to insure success. It must be remembered that the opacity of the card support absolutely prevents any examination of the film by transmitted light. After development and well rinsing in water, we placed the card, with the film thereon, in a saturated solution of alum, made by dissolving ordinary powdered alum in boiling water, and then allowing the solution to cool. After leaving the card with the emulsion still on in the alum bath for 10 or 15 minutes, we thoroughly rinsed the card again and washed in two or three changes of water, and we then placed the negative in the fixing solution, face downward, as the cardboard has a tendency to float and to curl up diagonally, leaving the two opposite corners uncovered by the solution. We use the ordinary hypo solution, with a little chloride of gold added (1 gr.); the fixing proceeded very slowly, and it was not safe to remove the card from the fixing solution for half an hour. On removal from the hypo we stripped the film from its card support. This was easily done by passing a knife under one corner of the film, when with care it was easily detached by steadily pulling it. Even in this wet state, as first detached from the card support, the film is very tough, and can be handled without fear of tearing. After detachment the film immediately enlarges about by one-fourth in length and breadth. After thus detaching, we placed the film immediately in water, to get rid of the hypo; this we found washed out more rapidly than in the case of a plate, as the water was able to get at both sides of the film at once. After washing, the film was placed in methylated spirit for about 15 minutes. During this process the film contracts, and is reduced to about its original size. On taking the film out of the spirit, we carefully placed it on a sheet of ebonite, taking up what moisture we could with a sheet of clean blotting paper, passing the hand over this with a gentle pressure, so as to leave the film on the ebonite quite flat and free from

air bubbles. The film was then left to dry spontaneously, and when dry was stripped off the ebonite in the same way as it had been before stripped off the cardboard support, the result being that the negatives and transparencies were left in the perfectly flat condition in which we place them before you to-night.

We adopted the procedure above described, in the absence of any instructions from the inventor. These we have since obtained, and we give you them in the inventor's own words, as follows:

"DEVELOPMENT.

"This is done either by oxalate or pyrogallie acid, in accordance with the known processes repeated hereafter.

"Pour the developing liquid, which must be prepared in a graduated glass measure beforehand, over the card.

"The white or bright parts of the negative enable the operator to watch the progress of the development, which must be allowed to go on long enough, because of the great transparency of the film.

"After having poured back the developing liquid, without removing the negative, rinse it twice in water, which should be changed each time.

Pyrogallie Acid Developer.

SOLUTION A.

Water	1000
Carbonate of potash	45
Sulphite of soda	12

SOLUTION B.

Water	1000
Pyrogallie acid	12
Sulphite of soda	12
Citric acid	2

Mix an equal quantity of Solution A with Solution B, and place the card in the mixture as soon as it is made.

Ferrous Oxalate Developer.

SOLUTION A.

Warm water	1000
Neutral oxalate of potash . .	300
Bromide of potassium	3

(To be filtered.)

SOLUTION B.

Warm water	500
Ordinary ferrous sulphate . .	200

After solution add 3 cc. of sulphuric acid in order to prevent oxidation.

Mix 80 cc. of Solution A with 20 cc. of Solution B. This developer may be used for developing successively two or three negatives.

"FIXING.

"Place the card in the fixing bath, taking care that the image be turned downwards. It requires about half an hour in order that the operation be well done.

"Several negatives can be fixed in the same bath, provided there be liquid enough.

"After this, two hours of washing are sufficient, during which the water should be changed three or four times.

"The following formula should be strictly observed:

"Warm water.

"Hyposulphite of soda.

"Ordinary pulverized alum.

"Let this solution settle for *several* hours, and then filter it.

"DRYING.

"This operation is very simple. After having cleaned the surface of the film with a piece of wet cotton, dry it several times between sheets of blotting paper, and then fix it firmly on a board by means of four or six pins, the image being turned towards a sheet of blotting paper.

"It is only after being completely dry (*this is very important*) that the gelatine film can be detached from the card by raising it at one corner, and round the edges, previously being careful to remove the holes made by the pins."

It will be observed that in our experiments with M. Thiébaud's cards we differed materially from the process he describes in four particulars.

1. We placed the cards in an alum bath before fixing, and did not mix alum with our hypo bath.

2. We detached the film from the card immediately after fixing.

3. After washing we introduced the spirit bath, which is not suggested by M. Thiébaud.

4. We dried the film by itself on an ebonite plate, instead of on a board with blotting paper, and with the cardboard back, still attached.

In our opinion, distinct advantages were obtained by the course we adopted.

In the first place we consider it a distinct advantage to avoid mixing alum with the hypo bath, and to use an independent bath for the alum, as by this course, and by washing the film after it leaves the alum bath, and before it goes into the fixing, the chance of liberating free sulphur is lessened.

In the second place there is a distinct gain by detaching the film immediately after fixing, as it is difficult to get the hypo out of the cardboard, and to make the film safe; if the film and the cardboard are washed together, the hypo must be extracted from both, whereas if the film is washed by itself in a detached state, the water acting on both sides of the film takes out the soda more quickly and thoroughly, and the cardboard having been got rid of, all risks attaching thereto are disposed of.

No doubt M. Thiébaud's object in retaining the gelatine on the card until all operations have been finished, and the negative dried, is to avoid the enlargement of the film, which takes place when the film is detached in a wet state; but, inasmuch as by placing the detached film in spirit, the gelatine is reduced to its original size, and the spontaneous drying is greatly accelerated, we are inclined to think our system of manipulation better than that suggested by the inventor.

Our fourth departure from M. Thiébaud's instructions, viz., drying the film after it comes out of the spirit bath on a plate of ebonite, is a distinct gain, as both rapidity in drying and an improved beauty in the surface are obtained.

We have now told you all we know about the "new cardboard stripping emulsion" process; it has only just been brought before our notice, and we have had great difficulty in giving it a fair trial, for December, in this climate, is not a month favorable to the experimental photographer, and our experiments with the cards have had to be chiefly conducted by artificial light; we have not, however, spoiled a single sheet that we have tried, and although we know that we could have obtained much better results if we had had summer weather, we feel sure that these cards will turn out a great boon to the traveller, and when enamelled paper in continuous bands is substituted for the

cardboard, the Eastman and allied processes will be run close if not surpassed, for the transparency of the pure gelatine is so great that one hardly imagines it can be beaten. In conclusion, we advise our friends to try some of M. Thiébaud's cards, and we shall hope to hear from them, on some future occasion, that they have been as pleased with them as we have been.—*F. Ince and G. L. Addenbrooke.*

THE OPEN CORNER.

THOUGHTS from my 1886 calendar and some appendices:

"With a perfect highway disappear highwaymen, crawling beggars, dirty inns, and extortionate charges, lazy habits, ignorance, and waste lands."—*Dickens.*

And so, with a neat reception room, a well accessoried studio, and a clean dark-room, good results and good prices are best secured.

"It is easier to suppress the first desire than to satisfy all that follow it."—*Franklin.*

And so is it easier to resist the temptation to slight a negative than to doctor it and dodge it in the printing-room.

"Wit without wisdom is salt without meat."—*Horne.*

And so, carelessly made pictures make it harder each year to procure salt, to say nothing of your meat.

"The shortest way to do many things is to do only one thing at once."—*Cecil.*

Don't forget this, fellow photographer, and always *do first*, what *must* be done. It will make the days go easier for you.

"A cock, having found a pearl, said that a grain of corn would be of more value to him."—*Leroux.*

I am afraid a great many of our birds who go to the St. Louis Convention will say this when they go home; for a great many grains of corn there would do more good than the pearls that only a few will share.—*Aunt Dottie.*

"You say that everybody must have a living?" says M. Dargenty in *L'Art* on the question of pictures bought by the

French Government. "Certainly, by some employment or other, but if you say by the fine arts—I do not see the necessity. Besides, do you believe that you render a painter a good service by purchasing his bad picture? It is the meanest trick you can play him. His picture sold, he goes and makes another. Do you buy that also? No; but all the same he will continue to paint, and his youth will pass in sterile work, and old age will come, and with it black misery, unless by good luck he finds in the provinces some doleful situation as instructor. . . . Out of the fifty-nine canvases bought this year by the Government, I do not find a dozen which merit the honor of being in a museum."

This is good sense. And so does everybody who purchases bad photographs or helps make them indirectly by beating down the photographer, do an injury all around.—*G. W. W.*

ONE objection to the use of color-sensitive plates has hitherto been the comparatively long time necessary for exposure. Recent experiments have much increased their sensitiveness, but unfortunately, the acceleration has been at the expense of the quality, the plates suffering much from fog. Recently, Dr. Vogel made some experiments on the exposure of the azaline plates by gas or lamplight, and found that they were comparatively much more sensitive to the yellow light than to day light.

He made use of two gas flames placed right and left of the object to be taken. It represented his scale of colors. Care was taken that the direct light did not enter the lens. He used a Dallmeyer lens, $1\frac{3}{4}$ inch diameter and 4 inches back focus, doing away with the stops. The very first trial he made convinced him that azaline plates had with this light, a degree of sensitiveness which was quite unexpected. Two minutes exposure was entirely too much time. He accordingly reduced the time down to fifteen seconds, but even then the plates were over-timed, dense, and required a long time to print.

An exact comparison with daylight, showed that with bright weather, 1 o'clock in the day, it required six seconds to obtain

an impression of the object, making use of the yellow disk. So that it appears it is possible with lamp-light without the yellow screen, to obtain a correct expression of the various colors in a time only two and a half times as great as that required by broad daylight.

The exposure by lamp-light gives very nearly the same tone relations as by daylight with the yellow screen. There appears to be a great future for the color-sensitive plates.—*Mittheilungen*.

THE *Photographic News* in alluding to the *Manual of the Photographic Tourist*, by M. León Vidal, says: Here is a book that should not only be in the hands of beginners, but also in the library of every professional photographer.

For over a quarter of a century, Mr. F. Gutekunst, of Philadelphia, has held photographic sway on Arch Street above Seventh. For over three years we personally labored there with and for him. There the PHILADELPHIA PHOTOGRAPHER was born, and there the pictures for its early numbers were printed. Since then not a serious mishap has disturbed our old photographic home, until, late in January, the fiery element leaped across the street from the burning St. Cloud and caused sad havoc amid the priceless collection of Mr. Gutekunst's negatives. For a long time we looked at the windows of Mr. Gutekunst as a sort of Westminster Abbey of portraiture, a place where the memory of the good and great was perpetuated, for when such died, we were sure soon after to see their portraits displayed in the unrivalled collection of that veteran photographer.

But now, at least when we made our last visit, say a week ago, our favorite windows looked like a crypt. Their framework is smoked and blistered, the gilded letters are despoiled, the grand collection is gone, and only the lonely portraits of Grant, Hancock, and McClellan (all of whom were photographed in our time) were there, shadowed by the timbers of a great coarse scaffolding erected for repairs, but which seems more like an instrument of death rather than of resuscitation.

The relentless firemen poured the water into the negative rooms above, and the destruction was dreadful.

When a good man dies some one will rise to carry on his work, even though he be such a photographer as Mr. Gutekunst. But when such a collection of negatives is destroyed, it is like the burning of a great library, and nothing can repair the loss.

The Philadelphia *Ledger* (Mr. George W. Childs's paper) speaks of Mr. Gutekunst's loss as being a public one, thus:

"Nearly the whole community has an interest in the damage done to Gutekunst's photograph establishment and gallery during the fire on Arch Street. An exceedingly valuable collection of negatives was stored in that building—the portraits of nearly every man who has attained prominence in Philadelphia, or who has been a visitor here during the last quarter of a century (especially in the Centennial period), besides pictures of many public men of other States and nations. This collection of negatives is certainly among the most valuable in the country, and its entire destruction would be a real loss to the community as well as to Mr. Gutekunst. It is possible, however, that the greater number of negatives may be saved, and among them some that could not now be replaced."

MR. J. S. HOVEY, of Rome, N. Y., called upon us a few days ago. He says he entered the practice of our art in August, 1842. He has a son following him. Good Romans, all.

SOME of our subscribers became alarmed about February 6 because "the February number of the PHILADELPHIA PHOTOGRAPHER is not yet received." Remember, our days of issue are the first and third *Saturdays* of each month. We shall try to be prompt always.

One subscriber followed his letter of alarm, next day, by saying, "It has come! Excuse my anxiety, for I did not want to miss a single number. It is better than ever, and I *can't* do without it.—*Eureka, Kansas*."

Another one says, "I am going to make my competitor subscribe for it." For this

much, thanks. *All* could help us in this way. We need *double* the number of subscribers we had last year. And how else are we to get them and escape loss? Please look at *our* side too.

Another veteran, now a dentist in Philadelphia (so we wont mention his name), called upon us recently, and said, among other things, that in 1842 he paid Plumb, the daguerrotypist, in that city, \$300 for learning how to make "sun pictures." Just think of that, ye who "cannot afford to take a Journal."

So said one of our Indiana subscribers early in January. Now, in February, one of the firm writes: "We send you the money to continue the magazine. We have seen the January issue. It is splendid this year, and we cannot afford to do *without* it. Its absence leaves *too big* an "open corner."

INSTRUCTIVE TRAVELLING.—A novel enterprise is to be set afoot early in the new year in England, whereby an opportunity will be afforded to those who have money and leisure to enjoy travelling in a peculiar way. A vessel has been chartered which will carry some fifty first-class passengers, accompanied by an artist, a photographer, a geologist, a mineralogist, a botanist, a zoölogist, and others, who will explore and collect wherever opportunity offers, but more especially in districts practically unvisited hitherto. The first voyage will last twelve months. There will be no hurrying over ground where anything valuable to science or art can be obtained, and at intervals the voyagers will have the opportunity of breaking up into sections and landing when either the beauties of rivers or the life and scenery of coasts can be studied and enjoyed. The collections made on the voyage will be carefully preserved for subsequent exhibition or for presentation to museums. Why won't some enterprising American organize such a splendid tour?

"You have seen Francis Foster's engraving of Raphael's picture of the 'Three Graces,' I'm sure," said J. Raymond Claghorn the other day. "Well, I have just received from my friend, A. W. Thibaudeau,

of London, a letter, in which he tells me that he has purchased the original painting from the estate of Lord Dudley, for the Duc d'Aumale, paying £25,000 sterling for it, and has forwarded it to Chantilly. Think of that—\$125,000 for one little picture."

FELLOW-PHOTOGRAPHERS, even though prices are low now, there is hope for the future. Keep up your spirits, and now is the time to subscribe.

A sample copy brought us the following:

MILWAUKEE, Feb. 4, 1886.

You invite me to subscribe to the PHILADELPHIA PHOTOGRAPHER. I am glad to state that I have already subscribed. Three years ago I picked up amateur photography, and I have been a subscriber ever since. I think it is the best magazine of its kind. I also have your great lesson-books, *Photographics*, and *Photographic Mosaics* for 1886, and besides these I have several 8 x 10 and three dozen stereoscopic views of your late trip to Egypt, Palestine, and Petra, which I find very interesting.

O. A. WALLSCHLAEGER.

PHOTOGRAPHY FOR THE NEWS-PAPERS.*

BY STEPHEN H. HORGAN.

MR. PRESIDENT AND MEMBERS OF THE PHOTOGRAPHIC SECTION OF THE AMERICAN INSTITUTE: I can assure you that I fully appreciate the honor your distinguished body has conferred in extending an invitation to contribute a paper, and I regret that time could not be obtained to prepare one worthy your consideration. Of the following it can be said, that if the subject matter is not interesting, it will, at least, have its brevity to commend it.

Your worthy body has discussed in detail every phase, almost, in the production of a photograph. The object of this paper is to call your attention to a valuable use you might often make of your finished work.

Amateurs throughout the country are

* A communication to the Photographic Section of the American Institute.

piling up thousands of valuable negatives, proofs of which are only seen by their immediate friends. In fact, most amateurs lose interest in a subject once the negative is secured and a proof taken.

They turn their attention to fresh conquests, when often the negative in hand is worth the dozens to come. This restless, unsatisfied spirit is a good thing in its way, but they should not hide their accomplished work. Let the public see it. Now, the best medium to bring it before the public is the newspaper, and the latter is gradually reaching a position to use the contribution of the camera.

It may be noticed that the newspapers of the whole country are endeavoring to use illustrations. This demand is in the form of a revolution, and is bound to succeed. For it has a correct principle back of it, which is this: A picture is the quickest and most agreeable method of conveying an idea or impression. In this rapid age people want to grasp a situation or get their impression of a public man at a glance—a picture tells the whole story at once, and in a better way sometimes than columns of type. Hence the necessity for illustrations in the press.

It is true that the current newspaper cuts are not very artistic. In making the majority of them the newspapers depend on draughtsmen. Skilled draughtsmen being scarce and alleged artists plenty, the result is the atrocious cuts in the press sometimes. Still an improvement is gradually taking place in the quality of newspaper illustrations, and this would be hastened would the photographer but give a helping hand.

The way to proceed might be something like this: Find first if you have among your negatives or in your vicinity a subject that is likely to be of national, sectional, or local interest. This subject may be a portrait, residence, a recent event or accident.

By way of illustration I might mention a few of the thousands of subjects around us in which the public of the whole country would be interested:

There is John C. Fremont, the "Pathfinder," one of the great characters in our history, who has probably never been photographed since he was a candidate for the

Presidency in 1856. He comes to his office on Broadway every day, yet no one thinks of securing a negative of him. The residences of such men as George William Curtis or Charles A. Dana, are of general interest, because even the exterior of a house reflects somewhat the character of its inmates. From the site of the proposed bridge across the Kills at Staten Island to the shattered Andre Monument. From the Croton Valley, where the largest dam in the world is about to be constructed, along the line of the new aqueduct to the Crematory at Fresh Pond, Long Island, plenty of subjects for the camera may be found which the people of the whole country would like to see, and the further away from New York, often the greater the interest in these scenes.

How true it is that we do not appreciate that which is within our reach. On the death of the late General Robert Toombs, of Georgia, recently, a telegraphic application was made to the local photographer for a photograph of the General's home. The answer received was that he had never thought of making a negative of it. How interesting to us, North, would be the pictures of the homes of these great war figures, Toombs and Jefferson Davis, yet it is not likely that even the latter has ever been photographed. In the town of Springfield, Ohio, is a rapidly decaying structure now used as a livery stable. It was once a church, and the one in which Henry Ward Beecher preached his first sermon. The local photographer would, no doubt, dislike to waste a plate on it. Still it is just the sort of picture the public would like to see. Innumerable similar examples might be mentioned of picturesque subjects of historical interest at which the camera is never aimed, while much good ammunition is wasted on landscapes or figures of no particular interest.

Having secured a photograph of interest, select a paper that uses illustrations, and the readers of which would most likely be pleased with your subject. Address a letter to the managing editor of the paper, stating that you have, or contemplate making this subject, and will furnish descriptive matter; or, if it is a subject of "news" interest liable to become valueless by delay, mail

your print and descriptive matter immediately, and you will receive credit or pay for your trouble.

By giving this matter a little thought, photographers will soon discern which are the most taking subjects with the press, and I can assure you the press and the public will appreciate them. The newspaper aims to give a faithful picture of current history. How much more truthful would that record be if it were made by the unprejudiced and impartial camera.

It has been my privilege to know something of the perplexity of an editor when the telegraph brings him the announcement of an occurrence at some distant point of which a photograph or portrait should be secured. He does not know the name, address, or ability of the photographer nearest to the scene, so he has to dispense with a picture of it. While if the photographer in the vicinity was thoughtful enough to send a print, it could be used with profit to both.

It is for this reason that photographers should give a little attention to the wants of the press. By so doing they will often learn to make a more intelligent use of their cameras, and by contributing to the pleasure or enlightenment of the public, will experience, without doubt, the satisfaction such an act brings.

ANOTHER AMATEUR'S EXPERIENCE IN TONING.*

BY P. H. MASON, M.D.

My experience in toning silver prints, as well as in general photography, has been short and interesting; in fact, it is just about the age of this Society.

The results obtained during this experience have probably not differed from those that every amateur has at one time or another secured—*i. e.*, anything from a fiery red to a pale, sickly blue.

I believe that in this short space of time I have tried toning-baths made up from almost every formula ever published, both foreign and domestic; and in that existed a great mistake—shifting from one formula

to another if immediate success did not crown my efforts. However, I finally settled, as we all will in course of time, and am now thoroughly convinced of a few facts which I am glad to give for what they are worth.

In the first place, I am a firm believer in the alkalis. Starting with a print that has been silvered on an alkaline bath, I have no desire to have it become acid throughout any of the different stages of washing, toning, or fixing. If using ready sensitized paper, fume it with ammonia for half an hour before printing.

Gold is the foundation of the toning bath, and the necessity of its good quality cannot be gainsaid. We read of formulæ calling for two or four grains of chloride of gold to sixteen ounces of water, etc. It does not say that it shall be chemically pure chloride, or two or four grains of the gold and sodium commonly purchased at any stockhouse, and which we know is only one-half gold. The uncertainty of the quantity meant is perplexing, to say the least, and the misguided amateur often has that to thank for his disappointment.

The method that I have found best during the past season to obtain a solution of chloride of gold that is reliable, has been as follows: Taking a two and a half dollar gold coin, or its equivalent in dental gold, which is about fifty-six grains of the pure article, cut it up and add, in a porcelain dish, three ounces of a mixture composed of three parts nitric and five parts muriatic acid. By heating on a water-bath the chemical action takes place more rapidly.

I say "on a water-bath," because a higher degree of heat than that of boiling water is uncertain, and is apt to change the auric chloride into aurous chloride, a compound not wanted, and one that is insoluble in water.

Evaporate the solution to a half ounce, or to crystallization if you choose, then add warm water to the extent of eighteen ounces. You will now have an acid solution of chloride of gold that will keep, if not used, for a lifetime, and will represent on a rough calculation about three grains of pure chloride to the ounce.

Neutralizing this gold for toning pur-

* Read before the Society of Amateur Photographers of New York.

poses is best done, just before use, by adding to the quantity desired to make up the toning bath (my experience is that one-half a grain of this gold to a sheet of paper is quite sufficient), enough of a saturated solution of bicarbonate of soda to turn red litmus paper faintly blue.

This neutralization should be done very carefully, giving time between the drops for the soda thoroughly to permeate the solution of gold before testing it.

Now for the alkaline part of the toning bath. Into two quarts of water put two ounces of bicarbonate and three drachms of acetate of soda. Make this a stock solution subject to draft, and let stand at least twenty-four hours before using.

With the prints well washed in several changes of plain water, in order nearly or quite to rid them of the free silver nitrate, take as much of the soda solution as will be required, and add the gold, as above neutralized, in quantity before stated, according to the number of sheets of paper printed, and you will be ready to tone. For the first time or two this bath will work slowly. Moderate heat will quicken the action somewhat, and this can be obtained by placing it over a small oil- or gas-stove. Almost any tone desired can be accomplished, from the warm brown or sepia to the purple or black. When one gets accustomed to its use he can print more intelligently, so to speak, with an eye to the toning—deeper prints being necessary for the purple or blacks. For a bright, sunlit landscape, expose not too long, and tone to a warm brown; while a cold, bleak subject should be carried to the grayish tint, allowing always for slight bleaching in the hypo.

Many have pursued the plan of acidifying the prints in one of the washings before toning. I fail to see the necessity therefor, as by starting with a few and adding at intervals three or four, and comparing them in the bath, the difference is readily noted and the completed tone easily determined.

Do not throw this bath away. It will keep an age. It may at times look black, muddy, or dirty, but it will work just the same. An occasional addition of a little of the stock soda solution *after* toning, other

than the necessary gold just before use, is all the attention it requires.

If, after using for some time, a precipitate forms in the bottle containing it, decant off the clear portion of the liquid for use and save the deposit for valuable waste.

I have been, perhaps, more explicit than necessary for some, in the method of the preparation of this bath. I might have simply written the formula and let it suffice; but if we are to learn anything from each other, particularly the younger from the older, the little details of the processes to be taught are all important—not only *what* to do, but also *how* to do it.

Doubtless there are many other toning baths that will give equally pleasing effects. I do not claim any superiority or even originality for this one. It is simple in its making and certain in its results.

From the toning bath the prints go into clear water and thence to the hypo, which is made up fresh each time, and consists of four ounces of a saturated solution of hyposulphite of soda to a quart of water. They will have a tendency to redden slightly at first, but an immersion of twenty minutes will restore the rich color of tone. A print may be said to be well fixed if, when viewed by transmitted light, it fails to show any spotted or granular effect in the clear whites other than that of the paper itself. A short bath in a weak solution of common salt, and we have no trouble with blisters.

The prints should be washed in running water for at least three hours, and, if the force of the water is not sufficient to keep them moving, they should be turned over occasionally by hand.

PRACTICAL POINTS FROM THE STUDIOS.

AMONG the samples of different nature recently examined in my laboratory of analytical chemistry, I received from a well-known photographer, four quarts of water, which he requested me to analyze. Of all the waters I have recently examined (that is to say hundreds of samples), I have never seen anything similar. It had a bitter and alkaline taste, and instantaneously brought back to blue the reddened litmus paper;

although limpid, it became milky and opaque when a current of carbonic acid was passed through it. In a word, this water contained a very great quantity of caustic lime, and was unfit for any use. It could not be drunk; it discolored vegetables cooked in it, and when used for laundry purposes acted injuriously on the hands. Here is the explanation of this singular fact. The photographer in question had built for him a house about seventy miles from London, in a locality in which there were no water-works nor wells. He therefore collected the rain water which fell on the roof, and which was conducted by means of iron pipes into a subterranean cistern furnished with a pump. He thought to obtain by this means a supply of very pure water for his photographic operations. But the cistern had been coated with a hydraulic cement, evidently of bad quality, which yielded abundantly to the water, caustic lime, sulphate of lime, and some other substances in smaller quantities and of less importance.

A similar accident happened some months ago in the London Aquarium, in which one of the tanks which had recently been coated with cement, also gave up quicklime to the water; some valuable fishes which had been placed therein were immediately killed. These facts demonstrate that it is very important to make a chemical examination of the water of a newly cemented reservoir so as to make sure that the hydraulic cement is of good quality and yields up nothing to the water.—DR. PHIPSON, in the *Moniteur*.

A REAL PRACTICAL POINT.

THE PHOTOGRAPHER has been coming to me monthly and on time, for the last thirteen or fourteen years. I do not remember of missing a number in all that time.

It is like an old friend, coming to me as it does from month to month.

I am glad you have concluded to make it a semi-monthly, and really hope you will make a success of it. I enclose a \$5.00 bill to help keep the ball rolling, and wish the PHOTOGRAPHER great success for 1886.

W. J. HILLMAN.

RICHLAND CENTRE, WIS.

TRY MY DEVELOPER.

A.

Hot soft water . . . 7 ounces.
Sulphite of soda . . . 2 "
When cold add pyrogallie acid 1 "
Salicylic acid 6 grs. dissolved in $\frac{1}{2}$ gal. alcohol.

For use add $7\frac{1}{2}$ ounces of water to $\frac{1}{2}$ ounce of solution A.

B.

Hot water . . . 57 ounces.
Sulphite of soda . . . 2 "
Carbonate of potass. . . 3 "

To develop a 5 x 7 plate use 1 ounce of A with 1 ounce of B.

I am using this on the Stanley, Cramer, and St. Louis lightning plates with good results.

To secure more intensity use more of A, or if too much intensity, I use less of A and more of B. I do not know as this is new, but I have not seen it put up in this form.

CHAS. KNOWLTON.

KANKAKEE, ILL.

IMPROMPTU SLIDES.

For the lantern, says Mr. Harrison, in the absence of photographic or other slides, it is possible to obtain, instantly, interesting and amusing effects by making use of ground-glass plates upon which drawings are made with a rather dark pencil, afterwards coating the image with a film of Canada balsam.

SCHUMANN'S ORTHOCHROMATIC PLATES.

The most important investigations in the direction of orthochromatic plates are those recently made by Schumann. He describes his method in a letter to the *Wochenblatt*, No. 50. His process seems very simple and cost trifling, the results being free from fog, which is the chief drawback to the use of color sensitive plates.

All his plates were exposed to petroleum light, which, as we all know, is so rich in yellow and red rays.

1. The sensitizer.

Cyanin solution.

Cyanin . . . 500 c. m.
Absolute alcohol . . . 1 gr.

To be well shaken.

2. The baths.

First bath, for softening the dry plate (2 minutes).

Distilled water	200
Strong ammonia	$\frac{1}{4}$ -4 c. cm.

Second bath, for sensitizing the softened plate (2 minutes).

Distilled water	200
Ammonia	2
Absolute alcohol	10
Cyanin solution	5

Or (2 minutes)

Distilled water	200
Ammonia	4
Absolute alcohol	10
Cyanin solution	10

The dipped plate is placed quickly on blotting-paper, and quickly and thoroughly dried. I found two or three hours sufficient. Take care not to touch the film with the fingers, as the slightest touch is perceptible. Expose soon after the plates are prepared, as they lose strength by keeping. Use, also, fresh baths, as they are liable to decompose rapidly.

The emulsion used must be free from all iodide of silver, if it is desired to have the

containing only one per cent. of iodide of silver, is only one-half as sensitive for spectral red as one made with pure bromide of silver.

The cyanin bath gives to the pure bromide of silver gelatine plates the same peculiarities as the iodide of silver combined with bromide; only the cyanin sensitizer is stronger than iodide of silver, and, moreover, gives finer modulations. I find that my plates work entirely free from fog.

The development of cyanin plates requires great care. It must be done slowly on a weak developer. I recommend only the potash developer, with addition of bromide of potassium, 1.4 drops .60 c. cm developer.

The apparatus employed by Schumann is ingenious and explains itself. The oil painting upon which the exposure is taken receives a flood of light, while not a ray of direct light can enter the lens.

OUR PICTURE.

WE present this month the first of the series of landscapes promised in our prospectus for 1886, to represent the four quarters of our country.

It is from a negative by Mr. H. L. Roberts of the firm of Roberts & Fellows, No. 1125 Chestnut Street, Philadelphia, and is representative of "The South." The scene is in western North Carolina, in the Nantahala Valley—Valley of the Noonday Sun.

We may not claim for this little gem that it is a fair representative of our far southern forest scenery, with its bristling palmettos and waving bananas and lofty palms and monstrous cypresses and wild swamps; not that. But it is a typical view of a southern country farm-home, and a place for solid, healthful enjoyment. A place for a poet, a painter, and a photographer to revel in.

The husbandman who sought such a romantic bend for his home, must have felt, when he first saw it, that

"So lonely 'twas, that God himself
Scarce seemed there to be."

But this was a good while before photography was born, as the "improvements" such as the old cabin with its stone chimney

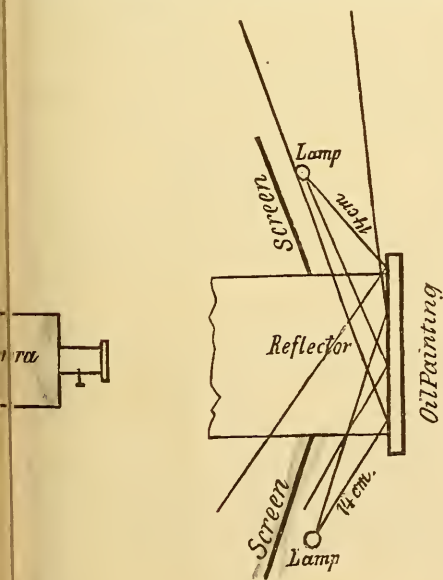


plate equally sensitive for the blue, red, and yellow.

This point is important. An emulsion,

outside, the unrivalled worm fence, the garden, and the road through the vale and the farm all testify.

This is the land of the pine air, and the violet bed, and the deep still stream, over which the lightning delights to snap its fingers as the clouds chase with it through the valley, dropping their tears as they fly. And what may the tired one *not* find in such a place? Does your heart cry

"O for a seat in some poetic nook

Just hid with trees and sparkling with a brook?"

You have it here.

Are you in search of a place

"With spots of sunny openings, and with nooks
To lie and read in, sloping into brooks?"

They are on every side.

And then there are the mountains—higher, much higher, than they look.

It will be noticed too, that they are not rugged and bare and rock-clad like our northern mountains, but are thickly clothed with timber to their very summits. For an outlook from one of these lofty elevations one must climb a tree.

As a picture, the view is admirably selected. All of Mr. Roberts' work shows him to be swayed by a tender feeling for the beautiful, and none more so than his picture of "The South."

Whenever looking upon it we are charmed with it and continually find new beauties in it. It recalls many happy saunterings. And even now, while we look at it, we seem to hear

"A noise like of a hidden brook

In the leafy month of June,

That to the sleeping woods all night

Singeth a quiet tune."

The prints were made on the famed N. P. A. paper, supplied us by Messrs. E. & H. T. Anthony & Co., New York, at the rooms of Messrs. Roberts & Fellows, Philadelphia.

MORE "WORDS."

In our last issue we commented upon the pun upon Mr. Xanthus Smith's name, by our colleague, Mr. Stone, editor of the

Amateur Photographer. Mr. Smith responds as follows:

FEBRUARY 11, 1886.

DEAR SIR: I take the *Stone* throw from London all in good part. Some people hate punsters, but I admire them. I should be glad to take our friend by the hand, for, as it takes a *Smith* to forge the implements as well as *Stone* to build, we may well work together in building up photography.

And to you, my good friend, many thanks for your defence of one of your clan, for I am a Wilson, too, on my mother's side of the family.

Very respectfully yours,

XANTHUS SMITH.

SOCIETY GOSSIP.

POSTAL PHOTOGRAPHIC CLUB.

AURORA, N. Y., February 13, 1886.

SUBJECTS for each album have already been announced to the club up to the close of the first year, April 1, next. Beginning with the May album and the new year, the programme of subjects will be as follows:

X. May. Grotesquerie.

XI. June. Statuary—copies of pictures.

XII. July. Clouds—water views.

XIII. Aug. Trees—outdoor groups.

XIV. Sept. Christmas Cards.

XV. Oct. Instantaneous other than water.

XVI. Nov. Composition picture:

A. The Musician.

B. Solid Comfort.

C. Miscellaneous.

XVII. Portraits (professional) of club, and landscape with human figures and animals.

The members will understand that each album is not limited to the subject designated, but good prints of a miscellaneous character will be frequently used for varying the monotony liable to arise in a collection embodying only one class.

Album No. 7, which went out in the first week of this month with 49 prints, makes the entire number now issued 220.

G. W. CANFIELD, E. L. FRENCH,

President.

Secretary.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.—Regular Meeting, February 4, 1886. President Smith in the Chair.

Minutes of last meeting read, corrected, and approved. Messrs. H. S. Herrick and Henry Jones were proposed for membership, and referred to the proper committee.

Mr. Virgil Williams reported that the Art Association would allow the club the use of their rooms any time in April, for the purpose of holding the exhibition, and that the large school-room could be used for lectures and lantern-slide exhibitions.

The exhibition committee promises to send out a circular to the members in a few days.

It was resolved that a special meeting be called for February 18th, at the Art Association rooms, for the purpose of testing lantern slides and preparing for the exhibition.

There being no further business, Mr. Tyler produced some undeveloped quarter plates, exposed in "China-town" that day, with a detective camera, during the Chinese New Year's festivities, and invited the members to try their hands at developing them. The lights were turned down and several members went to work. All of the plates turned out as well as could be expected, though various methods of development were tried.

At a late hour the meeting adjourned.

W. B. TYLER,
Corresponding Secretary.

BROOKLYN, N. Y., February 14, 1886.

DEAR SIR: Myself and a number of friends, all of whom own cameras, have started a club under the name of the Brooklyn Amateur Photographic Club.

W. B. CLARK.

THE Exhibition at Oporto has been postponed until the month of March. All expenses of transportation will be paid by the Executive Committee.

THE Pacific Coast Amateur Photographic Association holds its Annual Exhibition in the San Francisco Art-rooms, in April—date to be announced. From the announcement circular, we judge that there will be a superb collection gathered.

THE Camera Club of Hartford, Conn., held its Annual Exhibition on the 26th and 27th of February. It was largely attended

by an enthusiastic public. We made it a personal visit and shall record our pleasant experiences in our next impression.

THE Society of Amateur Photographers of this city gave its second winter Lantern Exhibition, at the Society's rooms, on Tuesday evening, February 23d. Slides contributed by members, by the Pittsburg Amateur Society, and the International Photographic Exchange, were shown. Members invited ladies and other friends and the occasion was most enjoyable. On February 17th, Mr. George H. Fox and Mr. Daniel P. Read were elected active members, Mr. James V. Hood an associate member, and Mr. Joseph P. Beach a corresponding member of this Society. Mr. R. A. C. Smith was elected Corresponding Secretary, in place of C. W. Canfield, resigned. Of the exhibition, more soon.

NEW OFFICERS OF THE FRENCH PHOTOGRAPHIC SOCIETY.—President, M. Levy; Vice-Presidents, Messrs. Guillemot, Leon Vidal; Secretary, M. Berthaud; Assistant Secretary, M. Cheron; Treasurer, M. Nacivet; Keeper of the Archives, M. Audoin; Secretary of the Syndicate, M. Carette; Reporter, M. L. Vidal.

PERTAINING TO THE



THE Convention work goes bravely on. We have had consultation with members of the various committees, and are coöperating with them to the best of our ability.

All things are working satisfactorily, and presently a programme will be announced that will doubtless win a large assemblage to St. Louis in June.

There is more disposition than there was

at first, we are glad to see, to expend what funds are available, for *solid* instruction, rather than entertainment.

The members of the fraternity can procure carriage-rides and attend picnics at their homes, but they cannot often have a chance at the benefits which ought to attend a large concourse of their co-workers.

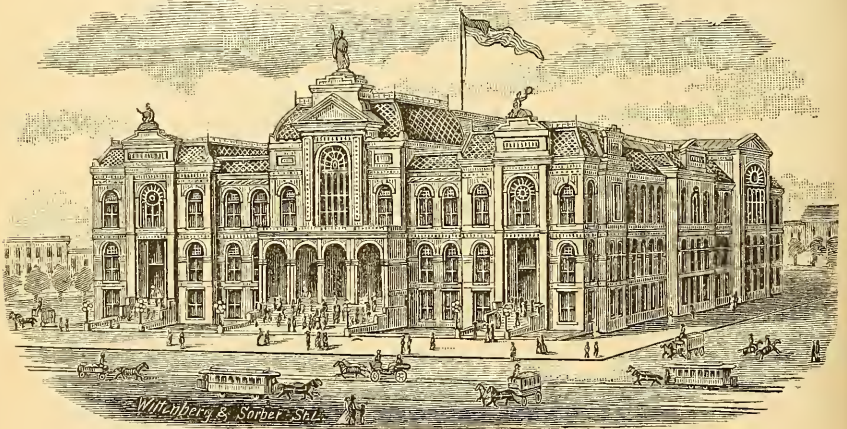
Therefore, we hope the committees who have accepted the responsibility of making the arrangements, will act wisely, and always keep in view the growth and advancement of our art. Heaven knows it is down low enough. Let us not permit the amateurs and the scientists who find our art of service to them do all the elevating or support all the dignity. Let it not be said that one of the four precious days of the Convention was devoted to a frivolous waste of time.

originated and arranged by our live local Secretary, who shall speak for himself.

ST. LOUIS, Mo., February 13, 1886.

FRIEND WILSON: I send you an electrotype of our Exposition Building. If you find it convenient you will please make use of it when you speak of our Convention. I think we will have a very successful one, as applications for space come in pretty thick. Mr. McMichael will, if he has not done so already, write to you, and will have more to say about the exhibits—how to send them, framed or not, etc.

There is a thing I would like to mention to you and hear what you think about it. It is this: As our main object is to educate the fraternity, show to them good work (how to do it) by offering premiums, etc.; we ought to show them also failures (how



ST. LOUIS CONVENTION OF PHOTOGRAPHERS ASSOCIATION OF AMERICA.

June 22d to 25th inclusive, 1886.

Among the things on the tapis are a "Field Day," during which the group will be taken. This is good, and will entail a steamboat excursion as well.

The reading of the competing papers; the award of prizes; the examination of the exhibits; the discussions and the practical demonstrations and lectures which the committees will arrange for, will all be grandly useful. And then, one of the very best things of all will be "A School of Failures,"

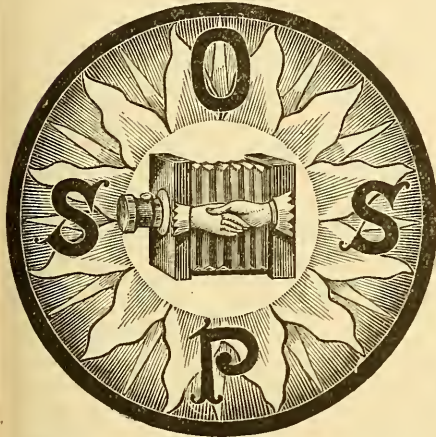
not to do it) and the remedies to apply. I thought now if we were to call on our brethren to go to the trouble—be self-denying enough to do so—to bring a few negatives and prints along that show certain characteristic defects and state what remedies to apply, this collection would be the most instructive one on the ground. I would take particular care to have a "hospital" erected, and bury the dead after the battle is over. What do you think of the

idea? If I find the least support I will try to carry it out.

Yours very fraternally,

R. BENECKE.

[This is a grand scheme and will be sure to meet with acceptance. All who can contribute to this *Morgue* will please communicate with Mr. Benecke.]



THE SECRET ORDER OF SCIENTIFIC PHOTOGRAPHERS.

THE following will interest our earnest workers:

MINNEAPOLIS, February 10, 1886.

MR. E. L. WILSON.

DEAR SIR: Your best wishes for the success of our "Secret Order Scientific Photographers" has been received. Receiving a request from one of the photographic journals to send them a cut of our emblem for publication, we did so with pleasure, and though not receiving such request from you, it was the vote of the order that one be sent you, expressing our thanks for your encouragement.

The Secret Order is the result of long suffering in the way of photo wars and cut-prices. We at last feel that we have established a brotherhood that will stand, and we hope to spread it through the land. A Secret Order in all the principal cities, and what strength we would have; a bureau of information would be established that cannot be equalled at present. Each order having the same grips, signs, and password,

and secret workings, it would make it very pleasant for members of the order to travel, and a photographer would feel more at home, when travelling, than a member of the masonic order.

The photographers hardly realize what a grand thing this would be, or how much it would elevate the business as an art. We have three different degrees: 1st, 2d, and 3d, but have not used them much yet, as they were intended for first, second, and third-class photographers; and we have no members in the second and third-class, as yet, but presume the time will soon come when the three degrees will all be working harmoniously. We are now organizing a Secret Order in St. Paul, and are in hopes to have a "Grand" Secret Order, soon.

This Secret Order cannot help but stop the cut-price system practised in so many cities, and put an end to the bitter enmity between different photographers in competition. This is a good work and big undertaking, but others will see and feel the need of it, and join hands in the best photographic association yet organized.

Fraternally yours,

A. B. RUGG,
Secretary S. O. S. P.

[Doubtless the officers of the S. O. S. P. will constitute a lodge at the St. Louis Convention. Wisely conducted, much good may grow out of this new organization, and we wish it every success.]

PHOTO. FACTS AND FANCIES.

A GIGANTIC ALBUM.

There is, or rather there will be, a chance—if the authorities of the Paris Observatory do not weary in their labors—of what, says the *Photographic News*, will be certainly the biggest photographic album on record. It will contain portraits of stars, and the fact that there are to be 20,000,000 of them, shows plainly that they are to be, if we may use the expression, stellar stars, and not human ones from the theatrical and political firmaments. This voluminous collection of star likenesses is to be contained in no less than 1500 pages, so that it will evidently be enormous. As, however, only one section of the above pages has yet been pro-

duced, and as this means that 5999 other sections will have to be taken before the photographing of the heavens will be complete, our readers need not begin to prepare shelf room for this new publication yet.

M. LEON VIDAL, our Paris contemporary, writes: "During the past year some of our principal photographers have made successful exhibits of their specialities in some exhibitions, notably at that of Antwerp. A greater number, however, abstained, doubtless awaiting a new universal exhibition at Paris to make a creditable show."

In his "Balance Sheet for the year 1885," Mons. Vidal says, that the return to collodion occupies the thoughts of some investigators. Some have tried to combine gelatine and collodion; others advise the immediate return to collodion emulsioned or treated by the wet process. None can pretend, as to the quality of the negatives, that gelatine is better than collodion. But it is so easy to work with already-made preparations, so much more rapid than collodion, that it is difficult for us to believe in the success of this reaction. It will become localized in certain studios, but we think it impossible that it will ever come into general use. The best thing to do is to be more careful in the choice of gelatine plates, and to use only those which present the best guarantee of excellence.

PHOTOGRAPHY AT THE PARIS "WORK EXHIBITION."

This Exhibition has just closed its doors after four months of incontestable success. All the branches of commerce and industry were there represented in their newest and most interesting inventions. Photography, which had a special gallery allotted to it, was very fully represented, although the number of exhibitors was not so great as might be desired. The important part, however, is that all the novelties in photography were found there. A gold medal was given to M. Pirou for his magnificent carbon portraits which at once attracted the attention of the jury.

M. Vedrine exhibited some vitrified photographs on enamel and porcelain. The process that he uses enables him to furnish

this difficult work at a moderate price. No less than three vitrifications are necessary—one for the sketch, one for the application of the coloring matter, and one to give the final finish.

The jury gave due appreciation to this indestructible mode of reproduction so little known, and all encouragement ought to be extended to those who, like M. Vedrine, give their attention in this direction.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

DEAR SIR: Inclosed are two cabinet pictures made on the same kind of paper used to embellish your journal. I wish you would tell me where my trouble is. You will see in the dark picture that the paper has been mashed in the burnisher, but I do not allude to that, but to the pinkish tint of the shading around the head. I never had paper to print nicer than it does; it has a beautiful purple color throughout; but as soon as I commence to tone, this tint makes its appearance and stays in the print until finished, no matter how long or hard I tone. I use the acetate toning bath. Now if you can clear away this fog for me so that I can get a nice rich tone to my pictures, I will be a thousand times obliged.

Truly yours,

CHARLES D.

Answer.

It is difficult in cases such as yours for an outsider to determine the cause of trouble. as there are so many causes of just such effects as yours. Therefore we can only surmise and speak of one of the many causes. In the first place, the negatives cannot be first class. They look as if they were of the sort that will produce gray, sunk-in prints in spite of all. Improve on them as the first step. Again, it looks as if your silver printing bath was weak, or that your paper was not floated sufficiently. Paper of this brand must have plenty of strength, especially in cold weather, and in your locality I should judge it is rather cold; hence the necessity for strong silver. We use our bath at 60 grains, floating 2 minutes, fuming 20 minutes, with a warm dish for ammonia. In your locality 65 or 70 grains, floating 2½ to 3 minutes, would not be amiss. Now

to the toning bath. Do not have it hot, nor ice cold. Use just enough soda to make slightly alkaline. If you redden your prints before toning with acetic acid, watch your bath closely or it will become very acid, and give you uneasiness. It may be that your acetate toning bath is not used properly. Suppose you try a simpler one, such as the following:

Water 64 ounces.
Gold, 3 grain solution . . . 2 "
Sodium carbonate, to secure slight alkalinity.

After trying this, if you secure more favorable results, you may look for the cause of your trouble in the acetate bath.

1. WHAT will be the best size condensers for a magic lantern to be used also for making enlargements on bromide paper?

2. What length of focus should the lenses be?

3. About what will they cost, and where can I get them?

4. Where can I get magnesium wire and is it very expensive?

5. Does it smoke so that it could not be used in a room?

6. Do you think that I could get a picture of a group, in a room about 35 x 60 feet, with it, if I used a very sensitive plate, there being no chance for any daylight?

QUERIST.

1. $4\frac{1}{2}$ or $4\frac{3}{4}$ inches.

2. Depends upon the objectives you use.

3. \$10 to \$14 a pair at T. H. McAllister's, 49 Nassau Street, New York.

4. American Magnesium Co., Boston. It is rather costly, owing to the limited demand.

5. If you use it long enough the fumes will obscure the light. But a draft of air soon drives away that drawback.

6. Certainly you could. The great trouble is to place the light properly. See late experiments at the amateur society.

PLEASE inform me what causes the black spots on my paper.

E. A. Z.

The trouble you have has been quite general. It is more or less due to impurities in the paper—probably iron—the evil being greater in some brands of paper than

in others. The spots appear on some sheets as if they were done with a brush and comb, as "spatter work" used to be done by the ladies. Some sheets are more affected than others, while many are entirely free. Similar spots are often caused by imperfect drying or when moisture is in the fuming box. Try some other brand of paper and note the difference.

TO NUMEROUS CORRESPONDENTS.

The Society of Amateur Photographers meets at 1260 Broadway, New York (take elevator on Thirty-second St.), as follows:

1886.	Social.	Reg'r.	Social.	Spe'l.	Social.
February,				23	
March,	3	9	17	23	31
April,	7	13	21	27	
May,	5	11	19	25	
June,	2	8	16	22	30

All are welcome.

WHAT is the reason for a photo. vig. print having a gradation of color from centre to outside; gray in centre, redder toward outside—the reverse of what it should be, I think. The same print if solid would have toned any desired color. I have never seen this fault spoken of anywhere. *Photographics* says nothing on this. My stock-dealer thought, on seeing a specimen, that it was due to highly colored paper, but it is not. A photographer of many years experience, laid it to my toning-bath; but it appears in the print as coming from the frame before it has seen a toning-bath. It also appears on a new printing bath as well as on an old one.

GEO. N. REDINGTON.

We have received the following in answer: This trouble may be partly due to the negatives. For instance, if the negatives should be dense in the background, the decomposition of silver would be less and slower where a vignette is used especially. Now the application is this. The silvered paper is oftener damp (possibly only slightly so) than otherwise, so that when placed in the printing-frame with a negative, under a vignetting-board, the light and heat are admitted freely through the central opening of the block, setting up a drying process, at the same time decomposing the

silver more rapidly, while the vignetted edge is still damp and comes up red. In the course of my experience I have noticed just such effects, and my conclusions are the result of my own observations. This may or may not be correct, but if it will be of any service, I am sure you are welcome.

CHAS. T. FELLOWS.

PHILADELPHIA.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

MARVELLOUS FEAT.—MIDNIGHT
PHOTOGRAPHY.

U. S. Marshal Ireland, of Utah, wanted to offer a reward for the arrest of George Q. Cannon, of the Mormon Church. At ten o'clock P. M. he gave the order to Junius Young & Co., photographers, for five hundred photographs of the missing saint. The photographs were made on Eastman's Permanent Bromide Paper, and delivered at three o'clock the next morning. The telegraph soon brought news that one of these photographs had overtaken the fugitive. This incident suggests a new possibility in photography, which can be obtained only by the use of Eastman's Permanent Bromide Paper.

THE sensitiveness of photographic plates is such that photographs of the fire on Arch Street were successfully taken by Mr. Arthur G. Massey during the night when the only illuminant was the light of the fire itself. That they were taken almost instantaneously may be judged from the fact that the figures of firemen stand out clear and distinct against the flames. The pictures, however, are like silhouettes, the ruins of the buildings appearing as black masses against the white of the flames; but there are some indications of half tones from reflected light, and one of the pictures dimly shows the south side of Arch Street wholly lighted by reflection. The experiment is one of considerable interest to photographers.—*Phila. Ledger*.

At the late Scottish Photographic and Art Conference, the President said: I am glad we have to-night, for our first paper,

An Exposition of the Eastman Film Company's Paper for Negatives, and its accompanying Roller adapted to the Camera, by Mr. Whaite, who has now acquired some experience of its working. I am sure we all hail this recent invention as a great additional aid to photography, owing to the portability of paper, and its superiority in several respects over glass. I have in another part of this address alluded to the objectionable part of this process, namely, rendering the paper transparent by means of castor-oil, but I have no doubt ere long some more agreeable substitutes will be found.

ONE evidence of the popularity of Prince Alexander of Bulgaria is the fact that an art-dealer at Sophia recently ordered from Germany twenty thousand cabinet-size photographs of him. A nice order.

THE PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN.—Mr. Frieze Greene exhibited an optical lantern appliance devised by Mr. Roger, of Bath. It consisted of a lantern condenser, the tube facing which was divided longitudinally into four sections by opaque diaphragms. In front of the four tunnels so made were four small object-glasses, with a rotating diaphragm in front. Four portraits of one sitter, with a different expression of countenance in each, were put into this arrangement, and by the rotating diaphragm permitting one lens to act after the other, the eyes of the portrait were seen to move apparently upon the screen, and the expression of the countenance to change; in fact, said Mr. Greene, the very skin of the face could be seen to move. He added that different parts of the slides might be painted with solutions of chloride of cobalt, acetate of cobalt, and chloride of copper; gelatine would take these solutions well, and still appear colorless until warmed by the heat of the lantern, when they would present different colors. Thus, he said, an uncolored portrait could be thrown upon the screen into which the hues of life would gradually come, and the features afterward become instinct with animation and motion. [He demonstrated all this, with the exception of the color experiment, upon the screen

with the aid of the lantern, and the effects excited much interest.]

Mr. Greene then exhibited some paper negatives and positives, taken by Mr. Fox Talbot and Mr. Calvert Jones, forty-two or forty-four years ago.

Mr. E. Cocking exhibited a lens shutter invented by Major Durnford, who called it the "right about" shutter, because its screen went up, turned over, and came down again.

AN evidence of the popularity of the PHILADELPHIA PHOTOGRAPHER and Wilson's photo. publications in Australia is this:

W. M. CARGILL,
General Agent,
and
Photographic Glass Engraver,
20 MARKET STREET.

Sydney, 3 Decr 1885

Order to Mr. E. H. Wilson 3 Dpts

3 Enclosure to Sewell's
6 Months Phil Phot Jrm July to Decm 85 (1 copy)
6 Wilsons Photographs
6 Topics "Progress of Photography."

21 Copies of ^{the last} Philadelphia Phot for 1886

W. M. Cargill

many plates. He had tried whether local reduction would not do all that backing of plates was supposed to do. At Eastbourne, in December last, he was permitted to take the interiors of some of the fine churches there, which he did in bright sunlight, and the halation was something frightful. The effect of local reduction upon them they would see. Mr. Copeland then passed round three pairs of prints, each pair being printed before and after reduction. The contrast between the two was most marked, the brightly lighted windows and all surrounding detail being entirely obscured in the first prints, though bright and clearly de-

Another nice order.

Australia does not send us any Society Gossip, but every once in a while it sends us substantial surprise like the above.

There is hardly a country in the world where our magazine does not go. Mr. John Carbutt received an order last month for his plates, from one of our subscribers in Bombay, India.

Advertisers would do well to consider the PHILADELPHIA PHOTOGRAPHER if they want to reach far, as well as near.

MANCHESTER PHOTOGRAPHIC SOCIETY.—

Mr. W. Copeland spoke on the subject of halation, which, he said, in taking interiors, had caused him great trouble, and spoiled

finer in the second. His method was merely partial reduction, which he obtained as follows: To one drachm of a ten per cent. solution of ferricyanide of potash add an equal quantity of fresh hypo bath, diluted with two or more ounces of water. If the plate has been dried, place it to soak in water until the film is thoroughly softened, then with a good sized camel's-hair brush, apply the solution over the whole of the halated part, moving the brush quickly backward and forward. After it has been on about a minute, wash off with clean water, then re-apply the solution, repeating the alternate application, and washing until the halation has disappeared. It is a good plan to dip the brush in water frequently, and pass it

over the plate. It must be borne in mind that it is only by constantly washing the plate that a line is prevented from showing where the reducer has been applied, but if these directions are carefully adhered to, it is almost impossible to fail. The solution may be used with a larger proportion of water with advantage, but its action will be slower.

Mr. Rushton referred to the discussion at the last meeting on the varnishing of transparencies, and said he then mentioned that Canada balsam, if evaporated down to hardness, and then dissolved in chloroform, would effect all that was required. He had since tried it for microscopic mounting, and also for varnishing transparencies, and found it quite efficient. The chloroform rapidly evaporates, and it dries quickly.

Mr. S. D. McKellen described a new roller-slide which he had constructed and patented, and which, he said, presented several new and important features. Mr. McKellen pointed out that his rollers are made to take any make of paper. They are constructed of brass telescope tubes, each roller being formed of two tubes, one fitting tightly within the other; a slot is cut longitudinally through both tubes; the end of the paper is put into this slot, and the inner tube being turned round, clips the paper fast between it and the outer one. Wood or any other sort of cylinder can be used instead of brass, if required. Mr. McKellen showed the action of the tubes. The paper is rolled on these rollers, and travels behind the exposing aperture crosswise; a spring is fastened to the shutter, its end bearing on the paper; on this spring is soldered a little lump of lead, which, when the shutter is drawn out, marks a distinct line on the paper at the edge of the closing aperture, showing the division between the pictures. When the exposure is made a lever is moved by the finger, the moving of which does two things, namely, moving a recorder one stop, and thus recording the number of exposures, and lifting a strong catch, which was in contact with a ratchet on the winding shaft, releases the winding shaft. The exposed paper is then wound on the receiving roller; the measuring is automatic; when the exposed paper is wound on the receiving roller the

lever falls into contact with the ratchet on the receiving roller, and locks it. This action is automatic, no counting or watching is required, and the parts are made so strong that there is no fear of breakage through inattention. The workmanship of the slide and of the mechanism was admired, and the slide was received with great enthusiasm. The slide can be made to contain as many as one hundred and twenty exposures in a slide two inches in thickness.

Mr. Abel Heywood, Jr., called the attention of the members to the fact that their Hon. Secretary, Mr. W. I. Chadwick, was about to go on a tour in America and Vancouver's Island, in company with Mr. Charles Harris, a member of the Society; and said that though the time had come when such journey was considered of no very great importance, he was sure the Society would not wish Mr. Chadwick to set out without wishing him good-speed. He had therefore, great pleasure in moving "That this meeting having heard of the intended tour in Canada, the United States, and Vancouver's Island, of Mr. W. I. Chadwick, the Hon. Secretary of the Manchester Photographic Society, and Mr. Charles Harris, a member of the Society, begs to congratulate these gentlemen, and to hope that their journey will be a prosperous and a happy one, and at the same time the meeting regrets sincerely that for a season the Society will be deprived of the valuable services of its very zealous and efficient officer."

Mr. Watt had great pleasure in seconding the resolution, saying that Mr. Chadwick had been Hon. Secretary for ten or twelve years, and had made great and beneficial changes. He had shown conspicuous energy and ability, and his name was well known in all the Photographic Societies in the country. He wished the voyagers safe and speedy return.

The resolution was carried with acclamation.

Mr. Chadwick said that the resolution came upon him with surprise, as, indeed, was only that day that the idea of taking the trip had been thoroughly "focussed." He was going to take a well-earned holiday and need scarcely say he should not g

without his photographic traps. His object really was to photograph, but he would say nothing as to results, as there were many who went to Canada who came back without any. He felt that more had been said than was necessary about his services, as he had done no more than his duty. During his absence they would have an opportunity of trying new blood, and that was very often beneficial. He thanked them most sincerely for their kind expression of feeling.

Mr. Harris thanked the members for their good wishes, and said he felt keenly the great responsibility of having charge of their Secretary, but assured them that he would take good care of him, and bring him back safe.

BRADFORD AMATEUR PHOTOGRAPHIC SOCIETY.—Mr. Scoriah, the Secretary, showed the Eastman-Walker roller slide, and negatives and prints produced by the same, which were much admired. After a short conversation on the development of paper negatives, the Secretary showed, by means of the oxyhydrogen lantern, a series of patch views, by Wilson, of Aberdeen; also views in Iceland, by Mr. Smith, and in the neighborhood of Bradford, by Mr. Wallace. Assuming the views in Scotland were by the wet process, they were considered too cold in tone—the ones by the wet process toned with platinum by the Secretary, of America, being warmer and showing better in the lantern. The views in Iceland, on Warneke's plates, were also very good; but the wet process had the decided advantage.

MR. W. I. CHADWICK, Secretary of the Manchester Photographic Society, sailed on Thursday on a visit of a few months to Canada and the United States. We bespeak welcome for him from such of our American readers, as he may call on.

HALIFAX PHOTOGRAPHIC CLUB.—After the confirmation of the minutes of the previous meeting, and the election of three new members confirmed by ballot, Mr. W. Clement Williams was called upon to read the last part of his paper on *Home Truths in connection with Photography, and of Enlargements in Particular*. The paper was a lengthy one, and touched upon the various causes of failure, many of them being

avoidable. A sharp line being drawn between "photographs" and "pictures," to produce the latter a certain individuality of talents requisite, and to produce "large pictures" requisite in an eminent degree; what these qualifications were being duly pointed out. The size and quality of negatives were gone into also.

SOUTH LONDON PHOTOGRAPHIC SOCIETY.—At the meeting of the above Society, held at the Society of Arts, John Street, Adelphi, on Thursday, February 4, 1886, at eight o'clock, Mr. F. York read a paper entitled *Notes on my American Tour*, illustrated by a series of dissolving views.

THE IMPROVED AMERICAN PERMANENT BROMIDE PAPER FOR POSITIVE PRINTS AND ENLARGEMENTS.*

BY F. C. BEACH.

AFTER calling attention to the marked improvement which has been made in this country, within the past year, in the manufacture of gelatine bromide paper, Mr. Beach said: The paper we shall employ this evening is that recently introduced by the Eastman Dry Plate and Film Company, of Rochester, New York, and called Permanent Bromide Paper. It is prepared by special machinery in large continuous rolls, and is therefore very evenly coated, a point of much importance, since it has heretofore been almost impossible to obtain hand-coated paper that was uniformly reliable. Furthermore it has been ascertained, the smaller the percentage of gelatine is that you mix with the bromide of silver, the richer and better will the resulting pictures be. The film must necessarily also be quite thin. By the use of special automatic coating machinery this is now easily accomplished.

Again, the sensitiveness of the emulsions for positive paper has heretofore been too great, frequently resulting in the loss of a picture by over-exposure, and making it difficult to develop, because of the faint

* Condensed from a paper read before the Society of Amateur Photographers, Feb. 9, 1886.

light required. Now the manufacturers have hit upon a happy medium, by making the speed of the emulsion much slower. The results to be obtained are therefore correspondingly more certain and superior, in addition to which the worker can use with safety, a flood of bright ruby and yellow light.

The paper will keep almost indefinitely, is always ready for use; and a positive print can be made upon it, dried and finished in far less time than is possible with albumenized paper. All the uncertainties of the silvering bath and toning are dispensed with, your picture comes right out, is fixed, washed, and finished in no time. The manipulation is extremely simple and cleanly. So quick can positive proofs be made by a common kerosene light, that I believe it will be but a short time before we shall see the practice started among some of our enterprising photographers of showing their sitters proofs from the negative or negatives before they leave the gallery.

There is no difficulty experienced in developing the pictures. The richest color is obtained by the use of the well-known ferrous oxalate developer, restrained with a small quantity of bromide of potassium. I generally employ the proportion of one part of the iron solution to eight of oxalate, and strengthen with iron until the proportion is one to four, if necessary. I also find it is beneficial to start the image in an old developer, or one in which several pictures have been developed, and then when it is half out, pour off the old and put on the new. It seems to balance the effect of the developer nicely and adds more contrast to the picture. In cold weather the developing solution will work better if kept at a temperature of 60° or 65° F., which will tend to prevent the formation of blisters, or the swelling up of the gelatine film in small hills over the surface, concerning which I have heard some complaints lately from a few members. When the film dries, the blisters generally subside without showing. After the picture is developed, prior to fixing, the sheet is soaked in a bath of

Sulphuric acid . . .	1 drachm.
Water . . .	32 ounces.

but an improvement on this has been sug-

gested by one of our members, which, while it accomplishes the same result, also prevents the formation of blisters.

The print is immersed, when removed from the developer, in a clearing bath composed of

Water . . .	32 ounces.
Acetic acid . . .	1 drachm.

and washed over with this two or three times. It is then rinsed in several changes of water and put into the hypo (1 to 6) to fix for ten minutes.

By immersing the print, after the hypo has been eliminated, in a 5 per cent. solution of water and glycerine, then removing it and slightly draining, it will dry flat, without curling. If it is desired to impart a fine gloss, it is only necessary to squeegee the print, film side down, upon a sheet of hard rubber, a point I spoke of at a previous meeting. I have had a sample of the paper squeegeed on the rubber, and will show you how easily it is stripped and what a rich gloss it possesses.

[Mr. Beach then pulled off three 6½ x 8½ bromide prints from a large rubber sheet and then passed them around.]

If glass is employed, a little oil must be rubbed over its surface before the print is laid on. By this easy process of polishing you will notice the prints look as highly finished as if made on albumenized paper. It is very certain that a bromide print is also more permanent than a common silver print, for the reason that it is obtained by the same process as that used in making the original negative.

Having now explained a few advantages of the paper, I will briefly direct your attention to the apparatus employed for enlarging. The most common instruments will suffice, but the main elements are, however, a good light, a good reflector, possibly a common bull's-eye lens for a condenser (but this may be dispensed with), and a good short-focus portrait lens. You can arrange these in any suitable box and obtain excellent results. Either a camera such as you use for field work can be utilized, or an ordinary magic lantern.

[Mr. Beach then illustrated the working of his improved apparatus, described in 1884.]

When a kerosene light is used with a condenser, the exposure varies from 15 to 60 seconds and sometimes longer, according to the density of the negative and the size of the enlargement, which latter is varied by adjusting the lens nearer to or away from the negative. The exposure to-night (which is to last 15 seconds) will be made by the oxyhydrogen lime-light in the Society's lantern, the latter having been specially constructed to adapt it for enlarging.

I have extended the bellows support further forward in order to accommodate the extra long focus of the 14-inch Ross Rapid Symmetrical Lens, which we used the other evening when taking the magnesium light picture. You will observe that it requires to be at some distance from the enlarging screen, and, as I intended, permits a better view of the enlargement by the audience when it is progressing. Ordinarily it is better to employ a shorter focus lens of the portrait combination order, with a rack and pinion adjustment for fine focussing. In this case we focussed on the white card on the face of the enlarging screen by moving the lens front forward or backward as required, which I will illustrate more fully after the demonstration is finished.

I have a 4 x 5 negative which I made last summer, the exposure having been nearly instantaneous, and the time towards five o'clock in the afternoon; I have this arranged in front of the condenser. The size of the head on the negative is half an inch, while that in the enlargement will measure about $2\frac{1}{2}$ inches.

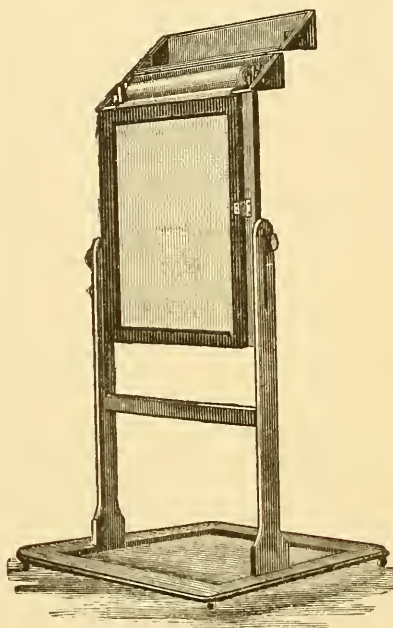
[Mr. Beach then drew the picture on the enlarging screen; the subject was a year-and-half old, curly headed baby, seated in a high chair on the piazza of a building.]

Fitting over the lens I have a cap of ruby glass, which enables us to adjust the sensitive paper properly on the screen without injury.

I shall work the lens at full aperture. I now desire to direct your attention to the very handsome and serviceable enlarging easel, which is quite new, and has been voluntarily presented to this Society by the Eastman Dry Plate and Film Company.

It possesses a number of advantages which

will be apparent as soon as shown. In the first place it has a square-base frame, with small pegs on the bottom acting as feet, which set on the floor; from the frame rise two uprights having longitudinal slots in their upper ends, and on their inner faces are longitudinal grooves in which the screen



slides. Two thumb-screws, one in each support, with suitable washers, hold the screen at any desired height. In front of the screen is a black, hinged clamping-frame, opening like a door, fastened by a light spring catch, and in this frame may be put kits of smaller sizes. Supported by suitable brackets at the top of the easel is a long, square, rectangular box, labelled on the front, "Open in yellow light only," which is cut diagonally across the square, making two halves, the upper portion being hinged at the top so that it may be opened just at the top of the screen.

In the box is the roll of sensitive paper, supported on a spool-holder, and tension is given to the paper by the usual pressure spring employed in the roller holder.

Those of you who have experienced the annoyance and delay in cutting off a sheet

of sensitive paper from the roll and pinning it to the screen, will at once appreciate the advantage this easel presents.

Your paper is kept unexposed on the spool in the box; after the focus has been obtained, you put on the red cap over the lens, unlatch and open the hinged clamping frame, throw back the latch-hooks which hold the box closed, open the cover and quickly draw down the sensitive sheet over the exposing screen (it easily unwinds from the roll), then you close upon the paper the clamping-frame, latch it, and your paper is as flat and smooth as may be desired. You make the exposure; then, with your knife cut off the exposed sheet, while clamped, open the frame, remove the exposed sheet,

open the cover of the box, and at once the loose end of the roll flies up and in.

By having smaller kits to fit in the clamping-frame, smaller sized rolls can be used; and not only that, cut sheets can be used instead of rolls if desired.

But it is evident that we have in this easel a most useful adjunct in making enlargements, a help which is a real gain, and something so thoroughly and admirably made that it will stand long service and be a great convenience to all who have occasion to use it.

I must congratulate the Company who have designed and gotten it up, and also thank them for presenting it to the Society. We shall all enjoy using it.

Editor's Table.

WILSON'S PHOTOGRAPHICS.—Scarcely had we opened a case of two hundred and fifty copies of *Photographics*, fresh from the bindery, ere a great hole was made in the lot to fill waiting orders, and the pile is being reduced daily.

Mr. CHARLES BAKER, of Minneapolis, Minn., says: "I find it discounts anything I have ever seen. I would not be without it for twice its cost."

Mr. C. H. COLBY, Ocala, Florida, says: "I don't see how I got along without it so long as I did. It is what every photographer should have."

So it will be seen that *Photographics*, unlike gelatine, works equally well in all climates and quarters.

THE third edition of Dr. JULIUS SCHNAUSS'S able treatise on *Licht-Druck* and *Photolithography* has been received from Dr. ED. LIESEGANG, Dusseldorf, Germany. Important additions with increased details are given, with four examples of process printing and twenty other illustrations. Printed in the German only. Price four marks, or, say, one dollar. It is the most comprehensive work of its kind.

THE *Boston Daily Globe* proposes presently to devote a goodly portion of its issue to "the interesting subject of photography." With such a start at the "Hub" what may we not expect the future of our art to be?

THE IOWA CITY DRY-PLATE COMPANY assure their patrons that before shipping plates from any emulsion they are put to the most critical test in the regular studio work of their own photographic rooms. This is very practical and satisfactory.

THE Steinheil Lenses have come to the fore again with a new agency, a new stock, and a new field opened for them by the dry plate and the request for first-class lenses for large head and full figures. Read the details in the advertisement of Messrs. H. G. RAMSPERGER & Co. We have so often commended the excellences of these lenses that not one word more is needed now.

THE EAGLE DRY-PLATE COMPANY now have their new "Eagle" Works under full headway and orders are already crowding the managers to their utmost. We shall record the experience of a very interesting visit to the "Eagle Factory," shortly.

MR. S. L. ALDERMAN, Greensboro, N. C. adds to our collection a series of his portraits of various sizes, which show him to be a careful and conscientious worker and possessed of artistic sense and taste, though he is, as he says, "the youngest photographer in the State and though he did get 'most of his knowledge

om the PHILADELPHIA PHOTOGRAPHER." We congratulate him upon the whole case, and condition of things.

Mr. D. F. BARRY, Bismarck, Dakota, has favored us with a catalogue of his portraits of noted Indian chiefs, taken "when hostile," and afterward when—what? All from original negatives.

THE *Journal of the Photographic Society of Great Britain* presents with its issue of January 10th, a photogravure print of Mr. W. H. ALLEY's capital "Sense Strengthening the understanding," to which we have previously alluded in terms of high praise.

Mr. WALRATH, Norwood, N. Y., sends us an example of his work made in a car, which is sharp, clear, and the subject is well lighted and well posed.

THE EASTMAN DRY-PLATE AND FILM COMPANY have favored us with some interesting examples printed upon their new Permanent Bromide Paper. From the most delicate clouds to the darkest rocks in the foreground the gradation is remarkable.

THE "Air-brush" continues to grow in popularity. It is a most interesting thing to witness its work. It seems like the formation of frost upon the windows. The spray is driven by the air-brush, guided deftly over the sheet, though invisible, goes on and on with its work of creation until a lovely image is formed; or when worked upon a photograph, until all the grossities are gone, and a permanent, pleasing likeness is secured. The air-brush is now well known and advertised in all circles, for it is applicable to many uses, besides being a great helper in photography. But it is not yet fully appreciated among photographers, and they will do well to examine into its merits and advantages.

Photographie Mosaics of Mr. WILSON, of Philadelphia, has just made its appearance. This publication, filled with very useful practical details, always offers very interesting reading, and makes an excellent work for the photographic library.—*Paris Moniteur*.

Mr. D. H. ANDERSON's gigantic composition picture of the Seventh Regiment, New York State National Guard, is one of the present attractions of this great city, and now on exhibition at Mr. ANDERSON's studio, corner of

Broadway and Tenth Street. The actual picture is 6 x 10 feet, and contains over eight hundred figures in all. It represents an immense amount of patient, hard work and careful study. The amount of invention, good sense, and good taste required to arrange the groupings and to secure the perspective, the feeling of vastness given by the interior of the armory, as well as to choose an almost infinite variety of positions for the members of the group, and yet to give them such direction as to harmonize the whole, all show the work of a master artist, and do credit to the noble art of photography. It is a real work of art, and deserves all the attention it attracts.

THE JAPANESE VILLAGE.—For several months the JAPANESE VILLAGE COMPANY held in New York one of the most attractive and instructive exhibitions ever known. Many of the arts of the curious people of Japan were carried on there; such as all the stages of cloisonne work, weaving in silk, painting pottery, and other art industries, all by native artists and artisans, male and female. If you are ever convenient to it, be very sure to visit it. We are led to this by the enjoyment and instruction personally had from our visits to the "village," and by a series of admirable photographs of Japan sent us by Mr. HARRY DEAKIN, one of the proprietors of the "village" entertainment. They are all brilliantly colored, and represent Japanese people at various vocations, street scenes, bazaars, temples, farms, gardens, and villages—a unique variety. They are admirably taken, too, and are 8 x 10 inches in size. But they are not as picturesque as the imported "village," after all.

GOOD WORDS FROM OUR SUBSCRIBERS.—The semi-monthly is a big success. I congratulate you.—W. B. TYLER, Secretary Pacific Coast Amateur Photographic Association.

I have all the volumes of the PHILADELPHIA PHOTOGRAPHER except 1864.—H. W. IMMKE, Princeton, Ill.

I have been a subscriber from the beginning, and would not know how to do business without it.—T. H. HIGGINS, Wheeling, W. Va.

I have all the volumes since 1870 bound in half calf, and a bookcase built specially for my photographic literature.—J. PITCHER SPOONER, Stockton, Cal.

I consider my subscription to your magazine a business necessity. I consider the PHILADEL-

PHIA PHOTOGRAPHER at the top in photographic journalism.—D. BACHRACH, Baltimore.

It is a magazine that no wide-awake photographer will try to do without.—THOMAS A. LACY, Woodland, Cal.

And so they say from all quarters, as they renew for 1886.

Mr. W. B. GLINES, Eureka, Kansas, gets much praise from the local press for his work.

Mr. THEODORE C. MARCEAU, of Cincinnati, was presented with a handsome goldheaded cane by his employes recently. It was a merry occasion.

Instructions for Beginners in Photography, is the title of a shilling book about the size of *Mosaics*, by Mr. BENJAMIN WYLES, and published by the SCIENTIFIC PUBLISHING COMPANY, London. The chapters on dry-plate manipulations are particularly clear and concise, and show how to get over many of the snags which the novice is apt to hit upon. The optical hints are also common sense, and just what are wanted.

THAT celebrated magazine, the PHILADELPHIA PHOTOGRAPHER, which is now in its twenty-third year, takes a new departure. It will be published semi-monthly hereafter without increase of price. Each issue will be as large as the former monthly number, and every copy, besides being illustrated, will contain the usual photograph for which this magazine has long been famous. Its publication office has been changed from Chestnut Street, Philadelphia, to 853 Broadway, New York. Mr. EDWARD L. WILSON is the editor of the PHOTOGRAPHER, and he makes it the best monthly of the kind in the world.—LUKE SHARP, in the *Detroit Free Press*.

"SEND *Mosaics*, 1886. I cannot get along without it, and wish it came oftener."—GEO. W. MOORE, Seattle, W. T.

TESTIMONIAL.—"I am happy to know you are going to visit us oftener, henceforth. Many a year of health and vigor for the good of the art for whose elevation you seem to have devoted your life is the sincere wish of, yours, faithfully, Prof. PETER ENGEL."

MESSRS. MULLETT BROS., Kansas City, Mo., have sent us a stupendous catalogue of 172 9 x 11 pages, commensurate in size with that of the "Wild West." It is a monster, and is elab-

orately illustrated by means of about 500 engravings. It must serve as a great helper to buyers, and will serve as a great helper to the enterprising publishers and popular, growing house from which it emanates. It is a great curiosity.

GOOD.—Mr. M. H. ALBEE, Marlboro, Mass. announces, that, with but one exception, the photographers in his city have combined on a price-list and agreed to maintain it. Mr. ALBEE is also gaining fame as a painter of back-grounds.

THE New Argentic Dry Plate has already developed into a great success. It will be a great convenience for photographers whose patrons "want only one picture and cannot wait."

THE new "Eagle" Dry Plate will be flying into market ere long.

A PAINFUL ACCIDENT.—We regret to learn that our friend, Mr. JASON C. SOMERVILLE, of St. Louis, was so unfortunate recently as to sprain his ankle. We trust he will be well before this reaches our readers. He writes cheerfully, and says: "The Executive Committee of the P. A. of A. have left after having a good time."

THANKS to the *St. Louis Photographer* for a copy of a supplement to its January issue, giving information as to the preliminary meetings, etc., in the interests of the coming convention. Good! This is enterprise, and means that there will be a grand gathering if St. Louis can work it up.

MCALLISTER's high-pressure dissolving keys, for use with cylinders of condensed gases, are a perfect success. Such a dissolver has long been wanted, but the complicated nature thereof has made it very costly. The "McAllister" dissolves charmingly, and is only \$35. T. H. MCALLISTER, 49 Nassau Street, New York.

"Now you are so much nearer us," says one of our permanent subscribers, "may I not look for you up here to go trout-fishing with me?" Why, old friend, New York is only two hours nearer to you than Philadelphia was, and, moreover, we always found it possible to start from Philadelphia, and go to almost any place in the world, quickly—New York and Boston included.

We see it stated in the *Exhibitor* that we use the "Milligan's Improved Dissolving Stereopticon" in our lectures. We have not done so for more than two years.

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THE PLATINOTYPE (Patented).

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ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers 392 Bowery, or 487 Eighth Avenue.

The *Pansy* for February is a whole encyclopædia of reading for a cold winter month. There are serials, short stories, poems, pictures, articles, adventures, little sermons and lectures, and letters. Both "Pansy" and Margaret Sidney are publishing excellent continued stories in the magazine this year; "St. George and the Dragon," a stirring boys' story by the latter, and "Reaching Out," a delightful story of "Nothing to Wear" for girls. Another excellent feature is the two alphabet series of great men and great women. Morse the inventor and Joan of Arc are the subjects this month. The want of good bright Sunday reading is certainly filled by this periodical. Only \$1.00 a year. Mrs. G. R. Alden ("Pansy") Editor.

D. LOTHROP & Co.,
Publishers, Boston, Mass.

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Class 19.—Animals, Dr. H. M. Howe, Philadelphia. Special.

Class 20.—Still Life, S. Fischer Corlies, Philadelphia. Special.

Class 21.—Flowers, Fruit, etc., S. Fischer Corlies, Philadelphia. Special.

Class 28.—Photomicrographs, Dr. G. A. Pier-sol, Philadelphia. A and Special.

Class 84 B.—Transparencies, W. S. Bell, Pittsburgh, Pa. Neg. B., Trans. A.

Class 35.—Set of six lantern slides, negatives and slides to be made by exhibitor, J. E. Brush, New York. Neg. Special, Trans. A.

GERMANTOWN, January 9, 1886.

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WANTED.—Frederick's Glacé Cameo-die, cabinet size, arch top. Address, stating price,
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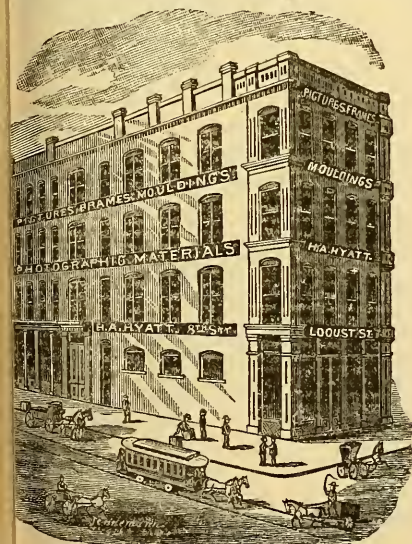
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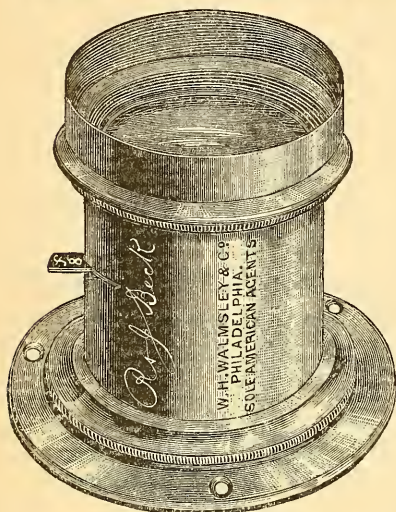
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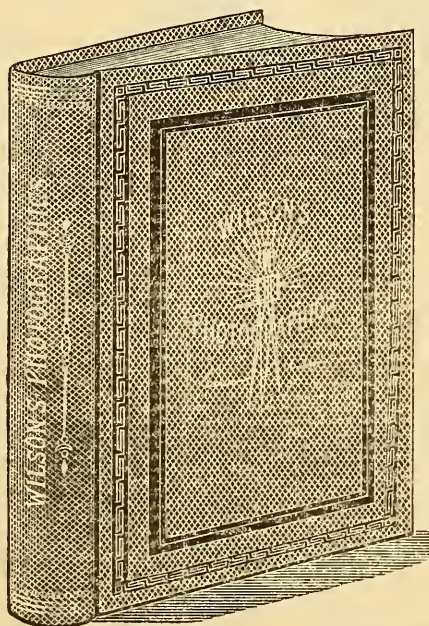
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 Perspective.
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 Enlarging Carte-de-Visite Nega-
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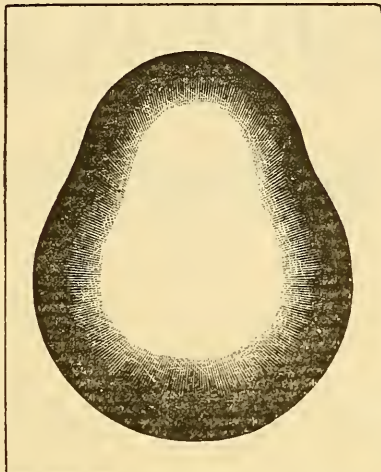
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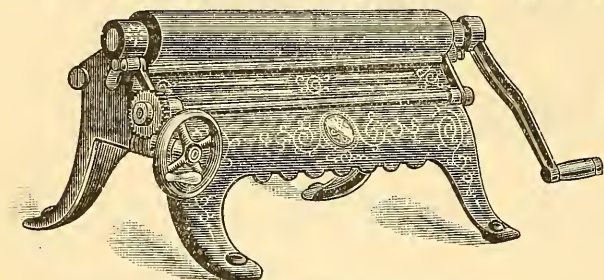
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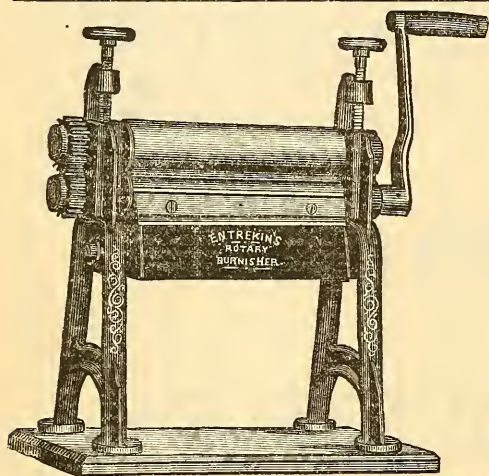
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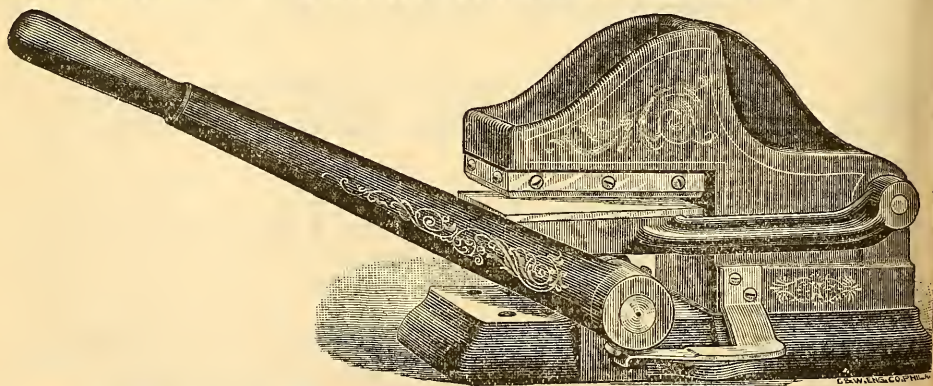
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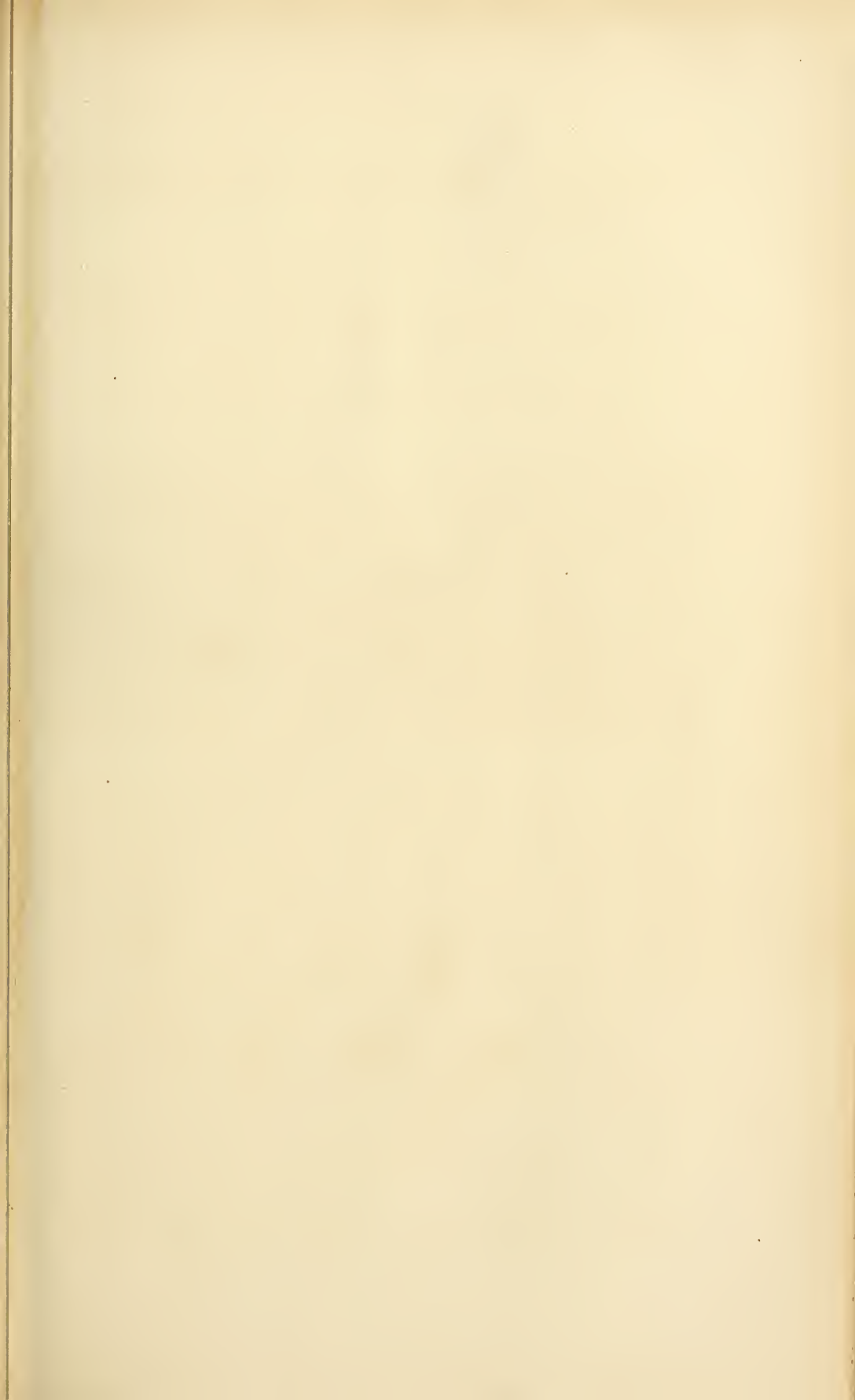
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Vol. XXIII.

MARCH 20, 1886.

No. 270.

"PLEASE DO NOT FOLD."

For twenty years the above words were printed upon the wrapper of our magazine, and proved to be somewhat of a protection against the fiends who never see a magazine without wanting to fold it. All at once it was discovered by some one that we were breaking the law, and we were obliged to omit all the caution.

As a consequence we have frequent complaints from our subscribers, that their pictures in the magazine reach them broken and destroyed. Once more, therefore, we applied to the Postmaster-General for permission to print the words "Do not fold" upon the wrapper. His answer is below. His instruction of the law seems to be an absurdity, but there is no appeal.

POST OFFICE DEPARTMENT.
OFFICE OF
FIRST ASSISTANT POSTMASTER-GENERAL.
WASHINGTON, D. C., Jan. 27, 1886.

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No. 853 Broadway, New York.

SIR: I have to acknowledge the receipt of your communication of the 26th instant addressed to the Hon. Postmaster-General, in reference to the addition of certain words upon the wrapper of second-class matter mailed by you, with a view of protecting such matter while in the mails.

I regret that I cannot authorize the printing of the words desired by you upon the

wrapper of second class-matter, as such notice "not to fold" would doubtless in many cases preserve the picture from being broken, but I am restrained by the Statute which reads as follows:

"Mailable matter of the second class shall contain no writing or print, thereon or therein, in addition to the original print, except as herein provided, to wit, the name and address of the person to whom the matter shall be sent, and index figures of subscription in book, either written or printed title of publication, the printed name and address of the publisher or sender of the same, and written or printed words or figures, or both, indicating the date on which the subscription to such matter will end."

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A. E. STEVENSON,
First Assistant Postmaster-General.

It will be seen, therefore, that those who suffer must personally appeal to the powers that be in their own localities, to remedy the evil. We are powerless until more wisdom is gotten into the heads of our law-makers. And this we will try to bring about.

By a detective system which we have applied, we have learned that the breaking is not done *en route*, in the mail-bags, but is entirely done at destinations, where the clerks either fold the magazine to get it into the box or drawer, or the carrier does it to suit the confines of his pouch. A kind word will often correct this.

THE OPEN CORNER.

THE *Boletín Fotografico*, of Havana, (January number) has translated a visit to "The Eastman Dry Plate and Film Company," which appeared in the PHILADELPHIA PHOTOGRAPHER.

MR. E. L. WILSON'S *Photographic Mosaics* has reached us. This is a very interesting compendium of the progress and important observations made in photography during the year which has just ended. The articles were contributed by writers belonging to all nationalities. They are generally short, which allowed many to be published, and have a practical character, which, in photography, is a most commendable virtue.

Mr. Wilson's house is one of those which have done the most for the diffusion of photography in the new world.—*Paris Amateur Photographer*

THE STORAGE OF LIGHT IN SENSITIVE PLATES.

Mr. Wilson relates in *Photographic Mosaics* a fact which he cannot explain, and which is of capital importance to those who make use of light.

The fact is certainly curious but is not surprising.

All bodies are more or less deeply penetrated by light. The human eye, which in so many respects may be compared to a sensitized plate, can become so impregnated that if when the eye is still on the solar rays it is directed to an object in the shade, it is necessary to wait for the excess of light to pass outside of the retina in order to see the object; every one has made this experiment. But it is more curious and perhaps more striking when in the darkness of the night we look at the stars in the heavens. If, after having looked fixedly at a single one the glass is turned to another star, the eye does not perceive it at once with clearness, it requires some seconds and sometimes several minutes in order that the eye should lose the light of the first star. The same fact is repeated in the following experiment: a white cardboard is placed in full light and then withdrawn; the eye sees it bright. If the cardboard remains some time in the light the brilliancy of the white disappears.

Bodies, therefore, receive light, keep it, and then return it by radiation. In Mr. Wilson's case this is evidently an analogous fact. The light had touched the sensitive plate without having yet been able to cause by its action a chemical change in the sensitized molecules. It had entered, however, into the plate in such a way that if Mr. Wilson had developed it at once, its presence would have shown itself in the fog which a developer would have produced. But the plate had time and obscurity for it, and it freed itself from the luminous rays.

This is our explanation. What is it worth? We should be happy to see some of our amateurs, who have the leisure, undertake the experiments on this interesting point. Mr. Wilson is not the only one who by an awkward motion has exposed, for an instant, plates to the light. The writer of these lines knows several of them, and one especially who would be very glad to feel sure that prolonged obscurity would restore to their natural condition his exposed plates.—*Amateur Photographer*, Jan. 16, 1886.

THE success of the venture entered upon by Messrs. Nichols & Handy, in the publication of photographic reproductions of American pictures, seems to be assured. One notes decidedly fewer of the Paris and Munich photographs which were once so common, and a marked prominence of reproductions of the works of familiar hands in the shop windows. Out of town the photographs of American pictures seem to have entirely displaced the foreign ones. Technically considered, the firm produce remarkably good work. Considering the difficulties which beset the reproduction of works in color by the camera, it is no overpraise to endorse that which they set their sign manual to. Every help to publicity in good form is a definite help to our art upon its rocky road. The wide popularization such a method of publication gives it, is to be commended and encouraged.

A NEW AID TO JUSTICE.

A novel application of a recent scientific discovery was recently made in the Philadelphia Orphans' Court by Dr. Persifor Frazer. During the audit of the account of Samuel

Clark, Jr., as administrator of the estate of his father, who was a large mill-owner in the northeastern part of the city, some questions of checks and charges upon partnership accounts arose, in connection with which it was necessary to settle the validity of some signatures.

Instead of resorting to the old and unsatisfactory method of the testimony of handwriting experts, Dr. Frazer was induced to apply the principle of composite photography. This principle was discovered recently by an Englishman named Galton, and consists in producing a photograph which is an embodiment of a number of originals. It is done by taking photographs of each subject separately, giving each plate, however, only a proportionate amount of the time requisite for its proper development. In this way only the features which are in all of the originals appear distinctly in the composite, while the exceptions and irregularities are lost. The discoverer obtained remarkable results in securing types of criminals, persons afflicted with pulmonary troubles, family likenesses, etc.

Dr. Frazer was given eighteen checks admittedly signed by the decedent, which he divided into three groups, according to the size of the handwriting. Some checks were used in two groups, so that each one of the three composites was made up from about a dozen checks. The result was, that in each one of the plates the signature "Clark & Co." was quite distinct, the only indistinct and superfluous lines being about the first two letters. Judge Hanna, before whom the audit took place, said that the plates were certainly trustworthy guides, and that he regarded the discovery as a very important one in connection with the identity of handwriting.

PARIS ACADEMY OF SCIENCES.

In his admirable investigations on the locomotion of man and animals, Mr. Marey has obtained by photography the line of the trajectory of different points of the body when in motion. The process consists in fixing at the desired point a small brilliant object, a metal ball for example, exposing the subject to bright light and taking a photographic print during the locomotion. We

thus obtain a continuous or dotted line, according as the light is allowed to act continuously or is periodically intercepted. In view of special investigations he was led to make experiments of somewhat different processes which appeared to him capable of being advantageously utilized in some cases in studying the locomotion of man and divers other motions.

I. Instead of a reflecting ball, a small incandescent electric lamp, similar to those in electric jewels, is used. This lamp is easily mounted on a pin or on a piece of leather which adapts itself to any point of the body. It is in communication by means of isolated wires, either with a small accumulator which the subject carries with him or with a fixed pile, in which case the communicating wires should be sufficiently long and supple not to hinder the motion. While operating in a dark room the photographic line is easily obtained. It is only necessary that the current should be sufficiently intense to produce a very strong and white light. Several lamps may be placed at the same time on different parts of the body. In case of need, there is no difficulty in obtaining periodical intermitances by means of a movable screen placed before the photographic instrument.

II. The incandescent lamp may be replaced by an ordinary azote Geissler tube, which is placed in communication by means of an induction apparatus. It is well to cover the large portion of the tube at both extremities by a screen pierced with a hole corresponding to the narrowed portion of the middle of the Geissler tube. We thus obtain an intermittent light, each discharge producing a small straight line. The space between these lines is in proportion to the quickness of the motion. This process offers also the advantage of giving the variations of inclination of the moving body. Thus, let us suppose the Geissler tube be fixed in the leg of the subject parallel to it; in the print the direction of the lines indicate for each moment the inclination of the leg.

III. Success may also be obtained by substituting for the Geissler tube induction sparks produced between metallic electrodes. This process, however, appears to him more difficult to use.—*Comptes Rendus.*

WORDS OF WISDOM.

DURING his inaugural address, the President of the Scottish Photographic Science and Art Conference said, among other excellent points for our art and science, the following:

"From any point of view, there is no question that the science department of photography has made, as yet, by far the highest attainment of any of its pursuits. The mechanical department also, from the force of necessity, has invented much, and followed in pace; but the artistic has hitherto been left very much to itself, and seems only now waking up to its importance. The fact that such perfection has been attained in the skill of treatment in the various methods of development, the question has arisen, What is there now of absolute need to be cultivated unless it be of a thorough knowledge of art, its proper claims, and methods of procedure?

"It was the conviction of this which led me at first to attempt the introduction of conferences on the picturesque. We are convinced that the study and application of photography is very incomplete where the two, science and art, are not united. Seeing that there is so much sought after of the latter, and capable of being rendered so pictorial, it is very desirable now-a-days that somewhat of a union be recognized; for it may well be said that science, through the theory and principles of art, has indeed found an helpmeet for her, and, *vice versa*, art is greatly helped by the applications of science."

Such words of wisdom as these, are what we should hear at our annual conventions instead of some of the utterances that we do hear. And such culture as is here advised, is the sort of culture we want. But first we must all learn to take wide and lofty views of things, and avoid stooping to the mean and degrading consideration of petty matters which are of no real account. Again our orator says:

"It is much to be regretted that prejudice and jealousy exist with some professional men on both sides. There is no doubt that many photographers lay claim to artistic ability which their works do not sustain, and the same may be said of artists. But

there are photographers who, while they lay no claim to be able to draw, have strong claims to the respect and esteem of artists, more especially when they manifest, at least, a considerable knowledge of pictorial arrangement, a thorough apprehension of the best aspects of a subject, and the points of view at which it may be taken.

"It is a frank and kindly recognition of this that is to be cultivated, and each party in his own sphere contributing to the advancement of both—the great object of our conference.

"Science has almost an infinite variety of manifestations and spheres of operation. So also has art. There are high attainments to be made by each, and while they both are independent of each other, yet, through the wonderful discovery of photography, they are brought together. Photography has rendered, and is destined to render, valuable assistance in bringing them to bear on each other, and making them mutual helps.

"When we think on her bearing on astronomy—bringing the laws of the universe into clearer discovery—her aid, bearing on microscopic manifestations, and other similar scientific pursuits, what may she not do in providing material for even the creative arts, not to speak of art in general, in its more subordinate forms? What is needed is the intelligent mind to apprehend her usefulness, and guide her to thorough practical ends.

"Such is the aim and intention of the Scottish Photographic Science and Art Conference. Our object is not to depreciate altogether any attempt at art, even although it may not be considered quite legitimate; the right thing will eventually assert itself, and the bad go to the wall.

"Comparisons of anything are not only odious but dangerous. Every work must be tried on its own merits, what its intention is, and how far it succeeds. All good work can bear examination, and every work that is not good may not altogether be without some practical lesson.

"Let this be the spirit in which we conduct all our proceedings, and I have no hesitation in saying that we are bound to succeed. I hope we shall all vie with each other in producing not only creditable work, but also

the best of good feeling that should accompany it."

Let us hope that the conductors of our next convention may take these thoughts to heart, and that all earnest friends of our art who attend may also imbibe them, and together do some real *service* in lifting up our profession.

All small detail work could be done in committee, and the country be just as safe another year.

"Now," continues the President, "so much for the spirit in which we are to act.

"Allow me now to say a few words with regard to what appears to me to be the most practical parts of our pursuit.

"The scientific being the first effort of photography, and that which takes precedence the artistic, the subject of developments, I may say, hitherto engrossed the largest amount of attention. This is the principal reason why the art element has made so little progress comparatively, for with all the bearings of science on photography, it is still far from being able to give true and satisfactory renderings of color as seen and felt in nature and art.

"Indeed, were photography able to meet these, there would no longer be any necessity for supplying deficiencies or reducing undue manifestations, such as freckles on the face, by means of retouching. If there be one feature or quality more than another commending itself in the new medium which the Eastman Film Company have introduced, it is the texture which the body of paper produces. In my opinion, this is to be preferred to that produced by glass. It creates a certain roughness which is much more suggestive of flesh quality in the human subject, and which is very helpful in the rendering of almost every object with texture with which photography has to deal. This new introduction goes in the right direction, and away from the wretched smoothness of a stippled surface which suggests nothing. I do sincerely hope that the objectionable accompaniments of it—the blurring of the negatives—will eventually be rendered more agreeable, and the process as a whole become popular."

To this point too, our hurried American co-workers may well give more attention, though in fact not much may be said against us in the manipulatory department of our work. We are as good as the best.

But, as in many another part of the world, we need more art education. On this point we are further instructed by the worthy President.

"Having spoken of the scientific side of our operations as a Photographic Conference, permit me now to call your attention for a little to the importance of the artistic.

"This is the department, as I have said, which hitherto has been left very much to itself. Very few who have not received an art education see its importance, and many are apt to think that anything is a picture if it be taken from nature, and successfully developed. Now, a photograph in itself is not a picture, however accurately it may be focussed. To constitute it a picture, it must not only have an idea, and purpose, communicating something to the person who sees it; it must have more, for a diagram or map may have all that. An essential qualification of the pictorial is the presence of beauty, sentiment, and feeling. These must be in it, according to the subject. To produce these the artist must possess those qualities of mind, or he will never see them in nature, and far less awaken them in others by any thing he may do.

"There are four kinds of vision which distinguish themselves:

"1st. There is the physical vision, common to the lower animals, and the lowest cast of mind, which discerns nothing beyond the objects that are presented to the eye, and even in these sees only form and color, but not beauty.

"2d. There is the intellectual vision, which reasons from facts and brings powers to bear on each other—that which refers to abstract principles as distinguished from art—pursuing knowledge or truth for its own sake. Such is the possession of the man of science.

"3d. There is the æsthetical vision, that quality of mind of which we have been speaking, which apprehends beauty, sentiment, and feeling, which seeks to reproduce the same and present it to others.

"4th. We have the moral and spiritual vision, known and felt only to those who are so endowed, manifesting itself in the study of divinity, in music, in poetry, and the fine arts, particularly in religious subjects.

"The second and third, then, of these capacities will be exercised in this conference.

"The third, which is connected with the art department, necessarily demands, if not a complete artistic training, at least a general knowledge of principles and their practical bearing on the interests of photography.

"I am happy to think that we have several members of our conference who are quite capable of giving an intelligent opinion, and making even critical remarks on the different pictures that may be presented for that purpose.

"We shall not enter further on this subject at present. We hope at our next meeting to commence our expositions from a few slides made for this end. I sincerely trust that what has been begun in good faith will not at any time make us regret the steps we have taken."

Take all these thoughts to your own heads and hearts and let the June "Conference" be one that will send out results which will not only do *us* good, but benefit all those who are unable to come.

PRACTICAL POINTS FROM THE STUDIO.

At the Sheffield Photographic Society, Dr. Morton recently read an interesting paper on the production of transparent plates for the lantern. This instrument is no longer a toy for children, but thanks to the photographic art it has recently become a powerful means of instruction for the people. The author showed that there exists at present a considerable number of processes for obtaining good transparent slides, but is of the opinion that we come the nearest possible to the plate colored by hand by making use of the Woodbury process of bichromate gelatine and a coloring matter. The carbon tissue is sensitized by causing it to float on a solution of bichromate of

potash, it is dried in obscurity and then applied to the negative. After exposure it is made to adhere, by pressure, to a gelatinized plate of glass. The action of warm water causes the paper or other support to separate, leaving the pigment on the plate, and removing the portions not hardened by the effect of the light; a treatment with alum finishes rendering the image resistant.

MR. TEMPLETON publishes a short dissertation on the advantages of technical instruction in photography, and expresses the desire to see the provincial towns follow the example in this connection given by the London schools. We may add that practical instruction has for some time back made great progress in the provincial societies.

ACCORDING to M. Bottone, it is not necessary to wash or dampen the plate before plunging it into the ferrous oxalate developer. If the plate carries with it some water in the developer a precipitate of sulphur is produced, colored by the ferrous oxalate, and which is nearly insoluble in water. If a plate is so hard that it does not develop well, it may be steeped for a short time in the oxalate. If a deposit has been formed, caused by the use of a too weak developer, it may be removed, after fixing by gently rubbing the film under the tap.

MOST of the elements combine directly with oxygen, but chlorine, bromine, iodine, gold, silver, and platinum form oxides only by indirect means. Non-metallic oxides are generally acid, whilst the oxides of metals are alkaline or analogous to alkalis. By combining an acid oxide with an alkaloid oxide we have for result a salt, and sometimes this salt still preserves an alkaline nature, as, for example, carbonate of potash, or an acid character.

THE compounds of potassium act in the same manner as those of sodium, but they are more powerful. Neither caustic potash nor caustic soda is to be recommended because these two alkalis remove the polish from the surface of the plate. The ordinary crystals of carbonate of soda contain about two-thirds of their weight of water, but the carbonate of potash contains only a fifteen

of its weight of water, all the carbonates and sulphites are insoluble in alcohol. Sulphite of soda is useless unless mixed with an acid. It gives off a very strong odor of sulphur. It is never pure, and, if left exposed, rapidly deteriorates. Hyposulphite of soda also deteriorates, but the fixing bath is so strong that this has no importance. The iodides were not known before 1812, and the bromides in 1826. The cyanide of potassium is never pure, and, as generally sold, the larger part consists of carbonate of potash, and about one-quarter only is cyanide.

TIFFEREAU says that when two volumes of nitric acid and one of bisulphide of carbon contained in a tube are exposed to the direct action of solar light, the nitric acid is decomposed; and there are formed nitrous gases and hyponitric acid with the vapors of the bisulphide of carbon in the upper portion of the tube, condensing into a blue-green liquid which afterward returns to the bisulphide; this last, by degrees acquires a blue-green color, and finally becomes almost black, whilst the undecomposed nitric acid remains clear and colorless. After from twenty to thirty days, white crystals—probably analogous to those of sulphate of nitroxyle—are formed in the upper portion of the tube. When the sun has no longer any action, the tube contains two layers of transparent liquid—one is colorless and the other has a yellowish tint, whilst above the lines are seen small cubical white crystals, and even a deposit of a small quantity of carbon.

NEW DEVELOPING FORMULA FROM FRANCE.

An amateur who has tried all kinds of plates says, that after many experiments he has arrived at the best results with the following formula:

	Troy.
1. Carbonate of soda . . .	16 oz.
Sulphite of soda in crystals . . .	7 oz. 6 drms.
Chloride of calcium . . .	38 grains.
Hot water . . .	57 oz.
	Troy.
2. Pyrogallie acid . . .	1 oz.
Water . . .	5 oz. 6 drms.
Sulphurous acid . . .	5 drms.

In using take:

	Troy.
No. 1	1 oz.
No. 2	1 oz. 2 drms.
Water	3 oz. 7 drms.

It may be used until the bath becomes black. Intensify with mercury and the iodides. It is an error to suppose that these intensifiers render the print less durable. It is the hyposulphite which causes the mischief; it should be eliminated by thorough washing.

PHOTOGRAPHING OIL PAINTINGS.

The following has been mentioned as a successful manner to obtain fine negative prints from oil paintings. Wet plates are used, and when the negative has been developed in the iron bath it is thoroughly washed, but not fixed; when dry it is varnished. The molecules of iodide of silver when well washed are not affected by sunlight; they retard its action and thus allow the obtaining of prints of incomparable softness.—*L'Amateur Photographe*.

CHEMICALLY PURE GOLD.

Mr. H. F. Carpenter, gold and silver refiner, at 29 and 31 Page Street, in this city, has succeeded in producing, by a process known only to himself, a chemically pure gold for the use of photographers who wish to make their own chloride. The term "chemically pure" means a good deal. It is almost impossible to obtain anything absolutely pure in the strict meaning of the term. Fine gold, as sold by refiners and used in the manufacture of jewelry, is not perfectly pure; it contains a trace, and sometimes a good deal more than a trace, of silver, copper, and other base metals. Its intrinsic value is \$1.03 per dwt., and is sold at that price and allowed for in sweep and other waste at the same price, there being no profit whatever in selling this metal. The chemically pure gold, $\frac{1000}{1000}$ fine, M. Carpenter sells for \$1.10 per dwt., and the article is worth its difference in price to those who desire it perfectly pure. Mr. Carpenter is a graduate of Brown University, and was the first person in the United States to refine photographic wastes. While studying chemistry at the University

(in 1860), at that time a youth of eighteen, he conceived the idea of utilizing the waste from photographers, which was being thrown away, as jewellers sweepings were some years previous. He has had a longer experience than any other person in this line (twenty-five years), and is doing business for photographers all over the country, as well as his regular business of gold and silver refining in general. He manufactures besides the chemically pure gold, a chemically pure nitrate of silver, and chloride of gold for photographic use.

Mr. Carpenter has put his education to a practical use, and the jewellers of Providence are proud of his attainments. Besides his chemical studies, he is an expert in regard to shells, having made the mollusks of Rhode Island waters the subject of close study and exhaustive writings.—*The Jeweller* (Providence, R. I.).

ALUM IN THE HYPO.

After reading the article, by Thomas Pray, Jr., in the January number of *THE PHILADELPHIA PHOTOGRAPHER*, I thought I would have to give you a little of my own experience about hypo and alum combined.

In looking over my negatives which I had made in the last year, I found a great many of them had changed to a yellow color and others only in spots and places, and could not account for it. I then went and looked over my negatives I had made two or three years ago, and found them as bright and nice as new. They were all developed with pyro and soda, and my oldest negatives. There was no alum in the hypo, for I kept them separate. But up to within a few months I have used alum in my hypo this last year; and made up my mind that that was just what was the trouble. I now keep my alum for alum, and hypo for hypo, each separate, and have no trouble. I think negatives will keep better and print quicker by doing this way.

C. P. M. McDANNELL.

One of our journals of chemistry states that a phosphorescent paper, which being visible in the dark, is very useful for labeling bottles and for many other purposes, may be obtained in the following manner: Take 40 parts of paper pulp, 10 parts of

water; 1 part of gelatine; 1 part of bichromate of potash, and 10 parts of "phosphorescent" powder. The author does not state the nature of the phosphorescent powder, but we know that it must be composed of sulphuret of lime, barium, strontium, or of a mixture of the three. The sulphuret of calcium is principally used for this purpose. The paper thus composed should be exposed to daylight to render it luminous during the night, and it is said that this property will last a long time—several months, or even a year.*—*Moniteur*.

POSITIVELY AMUSING.

It does not pay to think of getting along without *THE PHILADELPHIA PHOTOGRAPHER*. The amusement, without saying anything of the instruction afforded in every number, well repays the price charged. The amusement part comes largely from the conflicting opinions given as the experience of different operators; and this conflicting of opinions goes to show that men write up things according to their own mental status. Two men may witness the same fire, or dog-fight on the street, for that matter, and each will report differently as to how the thing appeared to him. But coming to the matter of photographic manipulation, it is amusing how much more importance there is attached to some *carefully written formula* than to *skilful handling* of everything pertaining to the working of the business, light, shading, expression, etc. I have been greatly amused to notice the enormous latitude held out as attainable in the matter of timing sitters, and this too, on the part of dry plate manufacturers as well as operators, although we are glad to give credit that most of the makers do not fall into this error. I think that any such view taken in the case is a licence to indifferent handling. However, we would not be considered obstinate in the matter, and are quite willing to confess what we know; and it is this, that if he overtimes his subject the thing may be "helped out" by any of the well-known

* M. Vidal remarks that if the sulphuret of calcium is covered with paraffine it preserves its phosphorescent quality for a number of years.

methods of retarding. But, according to our experience in dry plate work, the great point to be sought after is a correct timing of each subject; to notice and study light, how it was the day before, and to "hitch on" to-day where you left off yesterday. The difference in the complexion of subjects taken into consideration, etc., should be of far more importance, as a constant study, than all the nicely worded formulas ever written. Then study; study harder and still there will be more to be learned.

L. M. RICE.

WARREN, PA.

WRITING ON GLASS WITH COMMON OR INDIA INKS.

Warm the glass to 50° or 60° C. until vapor is no longer deposited. Then bathe the surface with the following varnish, moving the plate as when applying collodion in photographic work. The varnish consists of 80 grammes of 95 per cent. alcohol, 5 grammes of mastic in sheets, and 8 grammes of damar. The solution is made in a firmly corked bottle on the water-bath, and then filtered. This varnish is very hard, brilliant, and transparent. Drawings in common or India ink can be made on this surface; after completion, a thin layer of gum is added.

This method can be used for marking bottles, designs for projecting on a screen, or for photographic purposes, lantern slides, etc.

ON PRINTING AND TONING.

BY RANALD DOUGLASS.

EVERY photographer may have had, at times, trouble in printing and in getting good tones. It is a well-known fact, that when the silver bath is new there is no difficulty in printing and toning, but as the silver bath becomes older, it becomes more and more difficult to tone. At first, one bottle of gold is sufficient for two or three dozen sheets; when the bath becomes very old a fifteen grain bottle of gold has all it can do to tone only three to six sheets, and hardly even that. It is customary to abuse commercial chloride of gold and to recommend photographers to make their own gold. I would advise young photographers

and amateurs that almost all makes of chloride of gold in the market are thoroughly reliable. If the operator would but keep his silver bath fresh and in good condition always, he need have no trouble in getting well-toned prints every time. I have had much trouble myself, for years, until I hit on a very simple plan and way, since then I have very little trouble. Let me show how to do it. In the first place let us make up our printing bath fifty grains strong, and add nothing whatever to it, except a few drops of ammonia, just to make it slightly alkaline. An acid bath does not give as nice prints; besides, it is very liable to turn red after using. An alkaline bath does not turn red. If it is turbid after using, it becomes clear again by standing; the impurities will fall to the bottom. Let the bath be kept up fifty grains strong, and be sure, every time after so many sheets of paper have been floated on it, to boil it down till it is nearly dry, then water it till it is fifty grains strong, filter and make up to its original bulk with fresh silver and water. A half-gallon bath, I find, requires boiling every time two dozen sheets have been floated on it; a smaller bath oftener; a larger bath need not be boiled so often. I believe acetic acid in the washing after printing unnecessary, if not expensive. Simple washing with three changes of water is sufficient. The point is, not to wash away all the silver in the paper. In toning I use simply gold, washing-soda, salt, and water. The salt in the toning bath turns the prints red at first, so the change can better be observed. After fixing it is good to give the prints a bath of strong salt water to prevent blisters. Further, they must not be removed direct from the brine into fresh water or blisters will come on. Instead of that, let the brine be gradually diluted down while the prints are in it, moving the prints all the while before transferring them to fresh water; by thus doing blisters can be entirely prevented. I have often observed that paper that prints measly will not do so if the same is kept over till next day. In winter, when it is very cold, it is well to silver the evening before, for paper does not seem to work well freshly silvered in very cold weather. I hope the above remarks

will be of help to some who may be struggling through fog as the writer has been for a long time.

I can feel with Dr. Vogel and say "God bless the amateurs." We need not fear them. On the contrary, it is the folly of some of the professionals that need give us terror. The worst thing the photo. world ever saw, or probably will ever see, is the freak of a certain stockdealer, who is also a photographer, who has set up here and is cutting under the very men who patronize him.

WASHINGTON, D. C.

M. BALAGNY'S FLEXIBLE GELATINO-BROMIDE PLATES.

CONTEMPORARY with the invention of M. Thiébaud, given in our last issue, comes the method of Mons. G. Balagny, of Paris. This gentleman gave full details at a late meeting of the French Photographie Society, which were reported in *Le Moniteur*. We translate it very fully, omitting only a rehearsal of the inventor's early experiments and discouragements. The ingenious experimentalist has been working in an entirely different direction from those who found it quite easy to manufacture a support of small size from a combination of castor-oil and collodion, and now supplies a flexible body "as colorless and transparent as glass." It is composed of a succession of very adhesive films of collodion, varnish, and gelatine. Each one of the substances employed gives one or more of the qualities desirable in the result, namely, transparency, flexibility, impermeability, and extensibility.

Mr. Balagny admits some trifling difficulties in the manipulation of his films, owing to the disposition of gelatine to "take in water," but these he will entirely overcome. For all classes of work he recommends them, and gives the following details of manipulation:

To develop, use a dish made of oak, having a glass bottom and a glass opening on one of the longer sides. The bottom of this dish is wet with a little water, which is entirely removed. There remains enough dampness to cause the plate to adhere. The bath, as usual, is in a glass vessel, and is

thrown on the plate, which has been placed on the bottom of the dish. The development is made either with iron or pyrogallie acid, with ammonia, carbonates, etc. I make use of the development with soda crystals, which I have before mentioned, and I obtain agreeable tones with entire absence of the yellow color which causes many persons to avoid the use of pyrogallie acid. Whatever the mode employed, the development goes on exactly as if it were a glass plate; neither slower nor quicker. There is no necessity for hurry nor fear, as it is with great difficulty that the liquid can penetrate the support. From time to time the dish is lifted so as to bring all the bath in the space formed by the cover, and it is possible to follow from second to second the progress made in the development by examining the cliché by transparency. This is a point that I have always held, and that I have always wished to see realized by any support whatever, for to develop by reflection without being able to follow the development by transparency, is to go at haphazard; it is to create another difficulty when photography already presents so many, and to yield up everything to chance. If necessary, the negative is strengthened by any of the known means; then, when it has reached the desired point, it is placed for two or three minutes in a six per cent. alum bath. Now fix in a fifteen or twenty per cent. hypo bath, then wash in five or six consecutive waters, allowing the cliché to remain in each from five to ten minutes. Oftener the water is changed, better the negative is washed. However, do not allow the negatives to remain too long in the last water; in one hour all should be ended. I have sometimes allowed negatives to remain in the water three hours in succession; but this is useless, as it is the change, and not the sojourn in the water, that does the washing. It is therefore possible, by frequently changing the water, to wash very quickly, and that without handling the negatives. All the negatives being in the same dish, the water which it contains is poured out by one of the corners; the negatives remain at the bottom, and the water is renewed.

Here too is a method which promises

much, but it is not just what we want. The total depravity of gelatine, better known to dry-plate makers than to the users of plates, has made it, if not as objectionable on account of brittleness, yet fully as much so on account of its susceptibility to atmospheric changes. We, therefore, want something that will enable us to dispense with both glass and gelatine. It will probably come to us some day, with a substitute for albumen.

The placing in the frames is very simple. Stretchers are very good but are not necessary. We may gum the upper and lower edges of a plate of glass, of wood, of metal, or even of cardboard, and the flexible plate, which is exceedingly plane, will stretch on this plate without the least difficulty. *A fortiori*, sticking plaster may be used with perfect success. The rapidity is the same as for the best plates. It is, therefore, possible to make portraits, groups, and instantaneous views. It is known that certain kinds of work give what is called halos. Such are the interiors lighted by plain or painted glass, the sky detaching itself on a background of trees, and strong whites alongside of blacks in the subject; in these cases it is customary, to prevent the double reflection of the luminous rays, to coat the reverse of the plates with a mixture of burnt sienna earth and dextrine. Now, as we have here a body absolutely similar to glass, it is probable that the same thing might be reproduced.

I will here make an observation applicable to alum and hyposulphite baths, and to the washings. In all these cases the kind of dish to be used is immaterial. Stiffened cardboard is very suitable. It is well during these operations that the gelatine film should be turned toward the bottom of the dish, whilst in the developing bath the film which forms the negative should always be on top.

When the washings are ended, the cliché is quickly passed through bibulous paper, used solely for this purpose, to remove the excess of water, and finally plunged for five minutes in the following bath, contained in an enamelled sheet-iron or glass dish :

Alcohol at 40° (95 per cent.)	16 oz. 7 drms.
Glycerine	1 oz. 5 drms.

This bath has for object to accelerate the drying and to give very great flexibility to the negative.

You now remove your negative from the bath, drain it for half a minute over the dish and place it between two sheets of thick bibulous paper, laid on a clean plate, or even on the plate itself without any bibulous paper. Place on the back of the negative a sheet of rubber or oil-cloth, and with a roller gently press to remove all excess of the liquid. After using one sheet of bibulous paper, should any humidity remain, change it; you thus dry your negative keeping it flat on a plate pressing over it the roller with the interposition of one or two sheets of thick bibulous paper. When all apparent humidity has disappeared, that which is not visible and which is in the body of the plate, is removed by placing it for half an hour between thick bibulous paper laid flat on a table, or, when travelling, at the bottom of the dish, which should be carefully wiped. In a word, the negative should be kept perfectly plane whilst drying, but there is no need for any support. Placed between a book of bibulous paper on a table or between plates of glass, or books, the result is the same. At the end of half an hour or one hour, and to render the negative very plane, it is placed in a bound album of the thick bibulous paper mentioned above, in which it may be allowed to remain indefinitely. When the album is full, the negatives, laid one over the other in piles, or are placed in a spring box such as is used for the preservation of positive paper. There is nothing to fear from scratches or rubbing, the new support being extremely solid. When the bath has been used several times it becomes excellent, but from use it diminishes and then some new bath should be added in the proportion of two to one. A bath is old when a small quantity placed in the flame of a candle takes fire with difficulty. It should always weigh about 60° with a centesimal alcohometer. Four, five, or even more negatives may be placed in the bath at the same time. In this case, and after they have remained five minutes, they are placed one over the other on a single plate, finish by using a sheet of oil-cloth or caoutchouc. When the roller is

used all the liquid exudes and is received in the dish. Then, with thick bibulous paper, each negative is separately dried, still making use of the roller. The negatives are then placed one after the other in the first blotter, and then in the last, in which they remain until required for use.

With this process carbon printing is very simple, requiring but one transfer. Positives by transparency are made with very great rapidity, and projections and stereos, notably, show a clearness worthy of albumen.

Finally, as the flexible plates do not stretch, they can be used for printing two superposed negatives, one giving a greatly exposed landscape, and the other, persons who posed instantaneously. With little practice it will be possible to develop these negatives lightly, although with all the details, so that in printing one of the two negatives, the bottom one should receive the light only through the other. We have here some beautiful artistic applications reminding us of the pictures of Mr. Robinson. I might cite many other applications, and among others that of composite portraits which require the superposition of several negatives or positives of diffused portraits, but I will only say that they are numerous; it is for photographic amateurs to seek them. I can assert, however, that the new support will always prove useful in all cases where a rigid negative is not required.

LIGHT AND SHADE.

There are a few fundamental rules which regulate the harmonious disposition of pictorial light and shade, and from which no successful departure is possible. These are so absolute and apparent that I may state them as axioms.

Axiom 1. The general scheme of light and shade must be simple.

Axiom 2. The point (or region) of greatest interest shall be the point (or region) of greatest intensity, or of contrast.

Axiom 3. All other contrasts must not only be subordinate to this, but shall tend to give it value or prominence.

Axiom 4. The transition from light to shade, and *vice versa*, shall be gradual.

Axiom 5. In all good design there shall exist a more or less fixed proportion between the two extremes and their means, the latter, as a rule, preponderating quantitatively.

Cleanliness may be next to godliness, but the formal is not akin to the picturesque. Assuming that to "sit under a minister" and to "sit to a photographer" are not absolutely synonymous, it may not be out of place in me to illustrate my text with a few examples, classed under three heads, viz., vignette, cameo, plain.

Where a vignette is preferred, the sitter ought to be acquainted with its characteristic requirements. In a vignette, above every other kind of photograph, there should be nothing to attract the attention from the head and face. The dress should be plain in the extreme, light, and with no pattern, chain, bow, or such-like below the neck, to mar with pale lines, streaks or patches, the softly evanescent tint. The background should also be light, almost the shade of the dress, but lighter or darker, according to circumstances, and with just a touch of stronger gray over the shoulder which is in shadow, and another, a little larger, to balance it on the other side. The more softly and simply the neck is clad the better. Homogeneity should be the leading principle. The color of the hair, eyebrows, eyes, and mouth should, together with the shadows, furnish all the darks of the picture. Necklets and jewelry should be done away with completely, or reduced to a minimum. Exquisite vignette pictures have been made of ladies in pale fur hats, and massive capes to match, or in a cowl-like head-dress. Children's heads also, the neck and chest naked, or in a plain *negligé* night-dress, may be taken as a good type of the conditions most favorable to vignetting, and plain, light tweed and wollen stuffs are as safe as any.

For ordinary cameo prints, unembossed of course, much greater latitude in costume is permissible. Anyone, for instance, will look well in a dark bodice, with a diaphanous gauze or muslin scarf wound loosely round the base of the throat, the background being approximately as dark as the dress, darker for blondes. Brunettes, especially when handsome, may even indulge in such tex-

tures as brocaded silks, pompadour velvets, figured satins, and such like, care being always taken that neither the background nor the drapery around the neck contrast violently. A plain, dark gray dress, with a lighter, tiny, silken neckerchief, may be taken as a good type of a simple and becoming style of dress, but is suitable only for long necks. A very rich picture may be made of a head possessed of some color and character, a tasteful "fichu" of rich coffee-colored or other dark lace on a dark dress having an interwoven floral pattern, with a background of an arabesqued panel, carefully chosen and subdued. Very fair blondes may, under favorable conditions, dress in black velvet or satin—the older the better—but not in silk. Silk dresses, unless they fit like a skin, are difficult to manage, and rarely come out well. Dark furs may be worn to good purpose either by blonde or brunette. White must be much more sparingly used in a cameo than in a vignette.

For plain prints, either bust, cameo, or three-quarter length, any of the foregoing examples are equally suitable. In every case, except bust however, the base of the background should be slightly darker than the upper part, for the sake of giving an appearance of stability to the figure, and also to centre the interest around the upper portion.

A shadow, cast on the lower part of the skirt and background, may happily give emphasis to the face and bust. The hands, as forming two points of light, must be so disposed as to help the face by forming only a secondary contrast. Full-length figures are exceptionally liable to ill-advised treatment, and indeed, except in the case of riding-habits and evening-dresses with trains, it is rash to attempt them. Rembrandt effects are most suited to powerful or venerable heads, though, occasionally, an adept will make a picture partaking of this style from almost any good subject. In everyday practice it is advisable to reduce the white of the inevitable collar to a mere point, and to allow all details in the corners to be lost in utter darkness, due provision being made for giving the hair full prominence. In a subject treated à la Rembrandt one part of the head should form the greatest

contrast with the background, while another portion should fade into it imperceptibly. What I have said of black and white applies to very dark and very bright tints generally, when brought too suddenly together.—
HUGH BREBNER, *Transactions of the Edinburgh Photographic Society*, February, 1886.

THE HUMOR OF IT.

WHAT two trades has the Sun?

Answer—A tanner; and a solar printer.

—E. LONG.

QUINCY, ILL.

A "DEFECTIVE" camera is the last name given to it.—*Immature Photog.*

INTELLIGENT HOUSEMAID.

"Oh, please, Miss, there was a young gentleman called when you was out. He didn't leave no card, Miss, but I can show you who he is, 'cause ther's three of his photygraphs in your album.—*Shoe and Leather Reporter.*

NEARLY a ton (1937 lbs.) of human flesh stood before a camera and was photographed in Salem, Or., the other day. This ponderous weight is that of a man and his wife and five children, all of whom turned out in order that a group picture of the family might be made.

The formula was given in the 1886 *Mosaics*.

A WILD, exaggerated rumor comes from New York that the portrait of a telegraph messenger boy was recently secured by instantaneous photography, while the lad was going on an errand. The boy must have been suffering with a stone-bruise on the heel.—*Exchange.*

THE ILLUMINATION OF THE NEGATIVE OR TRANSPARENCY IN ENLARGING.

BY CHAPMAN JONES.

This is the chief difficulty which a photographer meets with who wishes occasionally to make an enlargement without spending an undue amount on apparatus for the purpose. If the negative or transparency is evenly illuminated, it only remains

to expose the large plate with ordinary care to get a successful result.

An evenly illuminated surface is often difficult to secure where one has only ordinary accommodation. If, for instance, the transparency is fixed in a window, objects at a very considerable distance—even two or three hundred yards—will cause thin places on the large plate, if they are included between imaginary lines drawn from the lens through the extremities of the transparency to the sky beyond. The operator may be tempted to think that such objects being so far out of focus cannot influence his work, but he will find himself grievously mistaken if he rests upon this assumption. With a good expanse of fairly uniform sky, there should be no difficulty, whether the transparency faces the horizon or the zenith. The sky also, if it is uniformly brilliant, may be used by means of an inclined reflector; but the reflector must be kept carefully clean, and be large enough to include, as it stands, the whole solid angle formed by the lines that might be drawn from the lens through the extreme corners of the transparency. If the transparency is 5 by 4, and the picture is the horizontal way of the plate, and the reflector inclined at an angle of 45° , a reflector that is 12 inches by 10 inches will be found to allow no practical margin when the optical centre of the lens used for enlarging is 8 inches distant from the transparency. A white surface, such as a sheet of white paper, may be used instead of the reflector, but exposure will have to be considerably prolonged, and if the white surface is not evenly illuminated, the enlargement will suffer.

The simplest method where daylight is employed, it to interpose a translucent substance between the light and the transparency. The translucent medium then becomes the source of illumination, and, with a little care, variations in the intensity of light that different parts of its surface receive, may be so toned down as to be practically eliminated. Ground glass may be used for this purpose, but nothing probably can equal opal glass. The opal has no grain, and its diffusing power is vastly superior to a couple of sheets of ground glass. Whatever is used, it should be placed at least two or three inches from the transparency.

To enlarge, by artificial light, a condenser properly used does away with all difficulty. But large condensers are expensive, and small ones are not of general utility. A condenser 8 inches in diameter is the smallest that will enlarge from a half-plate negative, and this supposes always that the transparency is placed close to the condenser, a position that will rarely be the best. The smaller the source of illumination, the more easy will it be to arrange the apparatus to give perfect results. The function of the condenser is to turn the diverging rays that impinge upon it into a bundle of converging rays, and the enlarging lens should be placed where it can receive, as far as possible, the whole of the light that passes through the condenser.

But a condenser is not necessary if a uniformly lighted surface can be produced by artificial illumination. Ground glass has been often recommended as a light diffuser, but it shows to far less advantage with artificial lights than with daylight, because artificial lights are of necessity more concentrated. Opal glass, however, is just able, with care, to give a satisfactory result. If four or six flat-flame burners are arranged in a group, so that their flames form as nearly as possible the required surface of light, and a sheet of opal glass is placed half way between the flames and the negative, the illumination of a 5 by 4 or half-plate transparency will be found fairly satisfactory. It is well to put a piece of white porcelain—a porcelain dish, for example—behind the flames to act as a reflector. The gas flames cannot be within 5 inches of the transparency without danger; the opal glass is then $2\frac{1}{2}$ inches in front of the flames. With these distances and a 5 by 4 transparency, the gas flames must be made to extend very nearly to the edges of a rectangle about 7 inches by 8 inches, and if the piece of opal glass is the same size, it will allow only a very small margin for misplacement. The burners may be screwed into a piece of bent brass tubing, with one end closed, and suitable holes in it; and the lower burners should point forward a little, that they may not cause the upper flames to flicker.—*Photographic News.*

PRINTS WITH GALLATE OR TANNATE OF IRON.

GIVING DIRECTLY POSITIVES IN BLACK,
OF A DRAWING OR OF A POSITIVE
CLICHE.

WE take from the *Photocopie* of Mr. A. Fisch, the interesting chapter which relates to this process.

This process, which is also called heliography, is very simple, easy, and inexpensive, it gives half tones, and the prints made by it are ink-black and directly positive from a positive or negative from a negative.

We owe this process to Mr. Poitevin, but it has been slightly improved.

A. Sensitizing Solution.—Dissolve separately:

- | | |
|------------------------------|---------------|
| 1. Gum arabic . . . | 13 drms. |
| Water . . . | 17 oz. |
| 2. Tartaric acid . . . | 13 drms. |
| Water . . . | 6 oz. 6 drms. |
| 3. Persulphite of iron . . . | 8 drms. |
| Water . . . | 6 oz. 6 drms. |

The third solution is poured into the second, well agitated, and then these two solutions united are added to the first, continually stirring. When the mixture is complete, add slowly, still stirring, 100 c.c. (3 fl. oz. 3 drms.) of liquid acid perchloride of iron at 45° Baume. Filter into a bottle and keep away from the light. It keeps well for a very long time.

B. Sensitizing the Paper.—Here especially it becomes necessary to select a paper that is very strong, well sized, and as little porous as possible. By means of a large brush or sponge apply the sensitizing liquid very equally in very thin and smooth coats; then dry as rapidly as possible with heat without exceeding, however, a temperature of 55° C. (131° F.). The paper should dry in obscurity and be kept away from light and dampness; notwithstanding all these precautions it does not keep well long, and if it is desired to act with some certainty it is better to have a stock to last only a fortnight. Freshly prepared it is better than a few days afterward. It should be of a yellow color.

C. Printing.—The tracing, made with very black ink, is placed in the printing frame, the drawing in direct contact with

the plate; then place over it the sensitized paper, the prepared side in contact with the back of the tracing. There is no necessity to make use of photometric bands as the progress of insulation is sufficiently seen on the sensitized paper during the exposure. From yellow that it was it should become perfectly white in the clear portions, that is to say, upon which there is no drawing of the transfer or positive cliché that is to be copied; this is ascertained by raising from time to time the shutter of the frame. The exposure lasts from ten to twelve minutes in the sun; in summer less, in winter more. When the exposure is ended remove the print from the frame, and it should show a yellow drawing upon a white ground. If in the sensitizing bath a few cubic centimetres of a rather highly concentrated solution of sulphocyanide of potassium have been added, this bath becomes blood-red and colors the paper the same; in this case the print also whitens during exposure, but then the image instead of being yellow is red on a white ground. This substance, however, is, if we may so speak, inert, or without any other action; it is very fugitive and even disappears in a short time in obscurity; it has no other use, therefore, than to render the drawing or the image more visible after exposure.

D. Developing the Prints.—When the print has been sufficiently exposed it is taken from the pressure-frame and floated for a minute in the following solution, so that the side upon which is the image should alone be in contact with the surface of the liquid, avoiding air bubbles between the two surfaces. Otherwise defects would be found in the print; to ascertain this, raise in succession the four corners. The developing bath is composed as follows:

- | | |
|-------------------------------|------------|
| Gallic acid (or tannin) . . . | 31–46 grs. |
| Oxalic acid . . . | 1½ grs. |
| Water . . . | 34 oz. |

In this bath the orange yellow or red lines are changed into gallate or tannate of iron, and form, consequently, a veritable black writing ink, as permanent as it. The print is then plunged into ordinary water, well rinsed, dried, and the print is now finished. The violet-black lines become darker in drying, but unfortunately the ground which

appears of a pure white often acquires, in drying, a light violet tint. For prints with half tones this is of no importance; but for the reproduction of plans, for example, it is very objectionable. By this process we have the satisfaction of obtaining a drawing in black lines similar to the original, and in most cases this is sufficient.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

S. W. S. wants to be told how to develop an underexposed plate.

Try the following bath:

Water,	150 c. c.
Concentrated solution of hyposulphite of soda,	1 drop.
Solution of bichloride of mercury (at 1 for 200),	5 drops.

Immerse the plate in this bath for from thirty to sixty seconds, wash it in water, and place it in the oxalate developer. As soon as the image appears in the developer, which is instantaneously used, to retard the action, one drop of a saturated solution of citric acid instead of the bromine.

Martha Harding asks for the best way to remove spots from negatives.

One good way is to dissolve 31 grammes of alum in 500 grammes of water, and add 9 grammes of bichromate of potash, and 11½ grammes of strong sulphuric acid. The negative is kept in this bath until it acquires a yellow tone, after which it is carefully washed. It is now exposed for a few minutes to a strong light, and redeveloped in the oxalic bath until it becomes entirely black. It is then rinsed and afterwards plunged into a solution containing 1 part of citric acid for 50 parts of water, and finally washed. It is very important to wash carefully after removing from the bichromate bath.

Another good way is—avoid the spots.

TO "CARELESS WORKER."

The way to keep the hands clean is not to soil them so. But, if you can't help it, then Dr. Vogel, in the *Photographisches Mittheilungen*, recommends, for removing silver stains from the hands, the same com-

pound that has been used as a reducer, *i. e.*, a mixture of ferricyanide of potassium and hyposulphite of soda. A few crystals of the former substance are dissolved in a solution of hypo or from ten to twenty per cent. of a twenty per cent. solution of the ferricyanide may be added to the hypo solution, and applied to the stains. This substance is not poisonous, and does not destroy the color of articles of clothing.

"PHOTO. ENGRAVER."

The following makes a very good fusible alloy. It melts at 160° F., and can consequently be used for moulding gelatine reliefs used in photography:

Bismuth	47.38 per cent.
Cadmium	13.29 "
Lead	19.36 "
Tin	19.37 "

"ENAMELLER."

As a rule, we do not like a glacé or enamel surface, but to preserve prints try the following: On each side coat your prints with a film of gutta-percha dissolved in benzine. Prints will then wash.

"YELLOW PRINTS."

Yes, the paste one uses may very readily cause the prints to turn. Our habit is to use starch paste. See *Photographics*.

Rice-paste, which is clear and transparent, may be prepared by mixing rice-flour and water, which mixture is then heated to boiling point until the required consistency is obtained. This paste possesses great adhesive power.

"DUMMY W. S."

To cleanse glass or porcelain vessels from organic dirt, use a mixture of sulphuric acid and bichromate of potash. Wash thoroughly ever after.

"BROKEN-DOWN GROUND-GLASS."

Always carry with you a small bottle of a solution of gutta-percha in chloroform. It forms, when carefully made and filtered, the best material for obscuring glass for photographic focussing-screens. You have only to take a dry plate, scrape off the film, and coat it with your gum solution and you are restored to happiness.

LIGHT AND SHADOW.

BY XANTHUS SMITH.

LIGHT and shadow is probably the most important quality in art; because, although we may convey a great deal by simple outline, it is only when we introduce light and shadow into a work that we get that relief which gives a look of reality. Coloring, which is the most difficult quality, the power to color very harmoniously and truthfully being a rare gift, is nevertheless very unessential as compared with the development of form and expression by lines and by light and shadow.

A thorough knowledge of and familiarity with the various effects produced by light and shadow is of paramount importance to the photographer; as, whether he will or no, he must constantly be dealing with it, his finest effects must result from it, and he cannot avoid it in its most unpleasant forms. The painter may escape it by conveying his impressions in outline only, or he may rely solely upon coloring for his brilliant effects, but such means of escape are debarred from the man who works with the camera only.

In the present paper I shall treat of both light and shadow and chiaroscuro, but use light and dark as synonymous with the word chiaroscuro. The painter deals with light and dark often, independently of light and shadow, getting his strong effects by the use of light and dark colors, and the photographer's work is influenced largely by effects of color, but unfortunately too often in a trammeling way; for, while with the painter a mass of yellow or light red comes in finely as a high light, and a patch of blue as a half shadow or shadow, the sensitive plate interprets these colors in precisely the reverse of the impression which they make upon us and of the values which the painter gives them as lights and darks; so the photographer must set his wits to work so to arrange, in all those cases wherein he has the power, his colors that they will assist in heightening the effect of light and dark instead of obliterating it, as he might do by injudiciously placing yellow in his high light and blue in his shadow.

It unfortunately too often happens that

beautiful effects which we see in nature are entirely incapable of reproduction by photography. A mass of delicate yellow-green foliage, for instance, coming in high light off a quiet passage of deep shadow, which has a beautiful effect in landscape, gives only a flat meaningless dark when photographed. And in autumn, the season of choicest effects, not only of color but of light and dark, for the landscape painter, we can get only incoherent patches or unvaried masses of dark with the camera. This, coupled with the monotony of the uniform dark-green of summer foliage, leaves only one resource for the landscape photographer in scenes where foliage predominates, and that is atmosphere. He must work upon days when gradations of distance and massing of light and dark is the result of haziness; smoke or dust or moisture more or less obscuring some passages and setting others out in bold relief.

In consequence of this trammeling influence of color in the production of pictures by the sensitive film as now furnished us (and we seem to be on the eve of improvement in this respect), photography is at present only really great in those outdoor subjects which are nearly devoid of color, such as architecture (of course omitting highly colored buildings), scenes in which barren mountains and heaths predominate, and all rocky scenery. I am now speaking of extended landscape, for when we come down to picturesque bits, grayish tints are apt generally to predominate, as in old walls and bridges, roads and paths, cottages, and tree stems.

With indoor compositions of still life and figure subjects, the photographer has it in his power so to group his objects and clothe his figures that he may make the colors subservient to his intended scheme of light and dark. It is true that the professional photographer must take his sitters as they come, unless he be a man of sufficient reputation and standing to say what colors shall and what shall not be worn. But in the case of amateurs who are aiming at the production of good works of art, they should make the study of colors in their relation to effects of light and dark an important part of their study.

Pictures that are composed nearly or entirely of half light or half shadow are always tame. And when high light predominates, there is a flimsiness and weakness which cannot attract or produce a fine impression. And again, where all is in shadow, there is a sombreness which is only suited to certain gloomy scenes where all is wrapt in darkness and mystery. It should be the aim of the artist, therefore, in those subjects where he has to deal with high light over nearly his entire picture, to introduce a few well arranged spots of dark, seeing, however, always that they be not equal in importance. Some of the Flemish

esting and powerful works. The high light though should be of an agreeable form, especially in that portion where it comes in greatest relief against the dark. Those who have at all made art a study are familiar with the fine effects produced by Rembrandt with greatly predominating dark and small portions of light. I instance Rembrandt because he was a transcendent genius in this quality, and being a prolific worker, he so completely covered the ground that the best that has been done since his time in that way, can only have said of it that it is in the manner of Rembrandt. His effects were often planned upon a simple scheme



painters, during the best period of their art, made beautiful pictures of open daylight scenes on the coast and in their flat country, by the introduction of a few well-disposed figures, or a group of picturesque boats, which, as distinct points of deep shadow, gave sufficient force to what would otherwise have been utterly valueless works on account of the monotonous light of the gray sky and sea or marshy country.

In pictures where half shadow and deep shadow predominate over the whole subject, the introduction of a spot of high light with a little supporting half light, will so set at naught the monotony as to make most inter-

esting and powerful works. The high light though should be of an agreeable form, especially in that portion where it comes in greatest relief against the dark. Those who have at all made art a study are familiar with the fine effects produced by Rembrandt with greatly predominating dark and small portions of light. I instance Rembrandt because he was a transcendent genius in this quality, and being a prolific worker, he so completely covered the ground that the best that has been done since his time in that way, can only have said of it that it is in the manner of Rembrandt. His effects were often planned upon a simple scheme

their entire absence from scatteringness. But in photography as such effects cannot have Rembrandt's beautiful, warm, harmonious, and luminous coloring, they will be better suited to certain subjects partaking of rather a sombre nature than to the making of generally agreeable and attractive pictures.

The most agreeable pictures are generally those in which half light or half shadow predominate, with a small portion of very deep shadow and brilliant high light; and perhaps the most complete arrangement of

and dark which they contain, I think he will find that they will conform, more or less, nearly to the above. I instance photographs because they are surer to be free from that conventionality of which painters are accused; and, if we turn to the works of eminent painters we are only too certain to find an adherence to these principles, and we must take the circumstance of their works having stood the test of time as proof of their soundness.

I give two examples which will illustrate



light and dark is that in which the work is divided into about one-half of half light and one-half of half shadow, with a sum total of high lights amounting to one-eighth of the surface of the work and as much deep shadow. This to many, at the present time, I know, will seem like conventional stuff; but, if any one of good taste will look over a lot of photographs of either landscapes or interiors or figure pieces, and lay aside those which strike him as being agreeable pictures, and then note the proportions of light

and dark which they contain, I think he will find that they will conform, more or less, nearly to the above. I instance photographs because they are surer to be free from that conventionality of which painters are accused; and, if we turn to the works of eminent painters we are only too certain to find an adherence to these principles, and we must take the circumstance of their works having stood the test of time as proof of their soundness.

I give two examples which will illustrate

forcibly the principles which I have set forth: The first is a view on the Western Coast of the Island of Heligoland, by Hermann Eschke. The work is composed largely of half light and half shadow. The highest light and deepest shadow come in immediate contact, and the artist has so adroitly managed to diffuse them that there is an entire absence from those patches of flatness and harsh relief which give what is called hardness and dryness to a picture, and his masses are everywhere so broken

by variations of depth, that while there is no baldness, the force and breadth are fully preserved. It is a fortunate circumstance too, that his points of greatest force and interest are about the centre, and all die off nicely as the outer edges of the work are reached, for it is generally considered that busy spots of light and dark close to the edges or in the corners of a picture distract the attention injuriously to the main central effect. How the poetic grandeur of the scene depicted is heightened by the treatment which the artist has given it!

The second example is from a picture by F. P. Stephanoff. Some poachers, whose booty hangs against the wall, are startled by some one endeavoring to force open the door of their cottage, and preparations are making to resist should it be the game-keeper. In this instance we have great breadth of effect from the picture being divided diagonally, one-half in shadow the other in light. The head and shoulder of the man with the gun, the woman with the candle on the stairs, and the moon seen through the window, carry the light into the shadow without, however, destroying its breadth. Then the shadow under the table, girl's frock, dog, and shadow up the wall, carry the darks into the light, breaking up its baldness. The white tablecloth which greatly heightens the effect, is prevented from being a cut-out patch by coming in the centre of the principal mass of light.

I do not consider it necessary to give counter examples, for Fig. 4 in my previous article illustrates admirably the want of massing of lights and shadows, the effect of an absence of half light and half shadow, and the disregard of the spots of light and dark having agreeable forms. And in figure subjects, I am sorry to say, there is only too much being constantly spread before us, especially in the way of cheap wood-cut illustrations, in which the reader may see the bad effects of indiscriminate spotting of lights and darks all over a picture.

A thorough knowledge of a few broad, well-established principles as a basis to work upon, and an attentive observation of the way in which Nature often applies them, and of the infinite variety which she gives us must surely result in success.

SOCIETY GOSSIP.

THE Minneapolis Amateur Photo. Club, went on a fishing and photographing picnic, led by their worthy President and Secretary, Messrs. Loring and Cleveland. Mr. Loring, by the way, thought it necessary to have the club try a new pyro developer, put up by some of the Milwaukee Bottling Co., "2 doz. in a case." Hoffman said it was necessary, for good results to be obtained, to fume before using; so he got a box of fumers, which, by the way, had on one of Uncle Sam's red stamps. Mr. Cleveland donated the use of a spanking team, sleigh and driver, which, by the way, did not belong to him. Mr. Kilvington donated a dog to keep the wolves from stealing the fish. Mr. Regan stowed two large baskets of bait and a can of milk to keep the bait down with, but if my recollections serve me right, most of the bait floated in Mr. Loring's new pyro developer. Mr. Schlenner threw in fishing-tackle for twenty-five holes. They were to start at 8 A. M., sharp, but 8 A. M. got blunt before they got in full sail, and started, but the day was bright, clear, and cool. After going about four miles, Mr. Peck imagined he was on a trip to Europe, as he got sea-sick with symptoms of convulsions, that in spite of Dr. Hoffman's pyro tablets and soda solution, could not be kept down. After two hours of riding, keeping warm by warmer stories, they reached Medicin Lake; it seemed as if Peck's disease was contagious, as all the members took to developing their palates—"plates." The way the developer was used it seemed as if it was a part of Medicin Lake with great healing powers. Peck revived and went in search of bait. He found a bag of ham-sandwiches, pies, and crackers, which he immediately began to hook "on." After cutting about eighteen holes in the ice, the President had the honor of catching the first (and last) two fish, both measuring less than six feet long; every member made at least five exposures on those two fish, to show their flattering success to their wives and friends. Hoffman fried one of the fish for the dog, but as the dog was an epicurean and Hoffman was no French cook, besides forgetting to make a cream sauce, the dog

refused to spoil his stomach by eating the fish. Mr. Laraway, Jr., postmaster, then placed the club on the right route for home, which was reached about dusk, after selling the fish at the market to help pay for plates, chemicals, etc.

Yours,

HYP0.

The Minneapolis *Tribune* says: The amateur photographers have the funniest way carrying chemicals that you ever saw. I met a party of them the other day in charge of Mr. ———. They were going out to photograph a few picturesque winter scenes, and stopped in front of a saloon for their chemicals, which they loaded into the carriage by the keg. I thought it was beer, but I have the solemn assurance of at least three members of the party, that it was only the chemicals necessary in amateur photography.

A REGULAR meeting of the Photographic Section of the American Institute, was held at the rooms, in the Mercantile Library Building, on Tuesday, March 2d. A paper was read on *Photography*, by J. B. Gardner, after which a choice collection of Stereoscopic Views was exhibited by the Lantern Committee.

O. G. MASON,

Secretary.

THE Highland Camera Club was recently organized at Newburgh, N. Y. All amateur photographers of Orange and Dutchess Counties are invited to become members. Col. G. E. Williams, President; W. H. Burbank, Secretary. For further particulars, address the Secretary at Newburgh, N. Y. Regular meetings every third Saturday.

W. H. BURBANK,

Secretary.

THE PHILADELPHIA AMATEUR PHOTOGRAPHIC CLUB.—The regular monthly meeting was held at their rooms, on February 15th, with Mr. Haines in the chair.

The minutes of the previous meeting were read and approved.

Mr. Clements introduced Mr. Gentilé, of Chicago, who was present as a visitor.

The Secretary was ordered to send a vote of thanks to Mr. Geo. H. Ripley for his kind

gift of a developing lantern for the Club's dark-room.

The Executive Committee reported that the Club's lantern exhibition at Girard College had passed off successfully and had been much enjoyed by all present.

Mr. Haines then read an anonymous paper "On Precision in Exposures," which had been received to be read at the meeting. (See our next issue.)

The following question was found in the question box:

"In making dry-plate slides, why is it a clear sky cannot be obtained?"

Mr. Clements suggested that the clouded or veiled skies were caused, as a rule, by over-exposure.

Mr. Carbutt said that a clear sky cannot be obtained in a slide unless the negative is dense enough to give a pure sky in a silver print. If the negative will give a clean sky in a print, but does not do so in the slide, then the latter is over-exposed.

Mr. Thompson said he had been using a solution of red prussiate of potash to clear up his slides, with excellent results.

Upon motion, Mr. Gentilé was elected an honorary member of the Club.

After a recess for an exhibition of lantern slides, the meeting adjourned.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA held its stated meeting Wednesday evening, March 3, 1886. The report of the Exhibition Committee was read, and a paper on the "Optical Lantern," by Mr. Frank Bement.

Mr. Frederick E. Ives exhibited a new form of Optical Lantern devised by him.

Conversational meeting, Wednesday evening, March 17. (Full report in our next.)

ROBERT S. REDFIELD,

Secretary.

A STATED meeting of the Philadelphia Amateur Photographic Club was held at the rooms on Monday evening, March 15th.

THE PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.—The Third Annual Meeting of this Association was held at their rooms, 318 Pine Street, Thursday evening March 4, 1886, President Smith in the chair.

Minutes of last regular meeting read and approved.

The committee having reported favorably, Messrs. H. S. Herrick and Harry Jones were duly elected members of the Association.

It was finally decided to issue three hundred invitations for the opening night of the Exhibition, each invitation to admit a gentleman and ladies; the invitations to be in photographic form, and enclosed in an envelope bearing a miniature photograph in lieu of a stamp, and the Association monogram, reduced, for a seal.

It was resolved that the Exhibition remain open daily, from April 5th to April 10th, inclusive, and with one or two evening entertainments.

It was resolved to admit the general public free at all times, on presentation of a card from any member.

Messrs. Tyler and Yale were requested to prepare photographic papers for the opening night, which they agreed to do.

The matter of music was referred back to the committee, with power to act.

A list of prints already sent in and promised, was read, and the committee reported that twenty-one exhibitors would exhibit between 650 and 700 prints.

A great variety of apparatus, cameras, shutters, etc., was promised by different members.

It was resolved that a series of "First Attempts" should be exhibited.

The election of officers resulted as follows: Mr. W. H. Lowden, President; George Tasheira, Vice-President; W. M. Speyer, Secretary and Treasurer, and W. B. Tyler, Corresponding Secretary.

The President announced the following committees:

Executive—Messrs. Smith, Gibbs, and Oliver. Membership—Messrs. Lowden, Brooks, and Stanford. Finance—Messrs. Blackburn, McConnell, and Shafer.

The meeting then adjourned.

W. B. TYLER,

SAN FRANCISCO, March 5, 1886.

Cor. Sec.

FIRST ANNUAL EXHIBITION OF THE CAMERA CLUB OF HARTFORD.

THIS Exhibition was held during February 26th, 27th, and 29th. We enjoyed the privilege of a personal visit thereto on the 26th, and a private inspection of the work with the members there to receive and explain.

We found the collection, in magnitude and variety, far beyond our expectations, as well as an exceedingly creditable one. It was arranged upon the walls of Eckhard's art gallery, and upon tables and easels distributed about the room.

It was not open to the public in the evening, probably because the modest committee thought the public would not feel sufficiently interested to attend. But we believe it would, had the treat spread out been anticipated.

The following list of awards was offered:

FOR AMATEUR WORK ONLY.

1. Landscapes. *a.* With Architecture. *b.* Without Architecture.
2. Marine Views.
3. Architecture.
4. Interiors.
5. Animals.
6. Instantaneous Effects—except Surf, Sail, and Animals.
7. Portraits. *a.* Single Figures. *b.* Groups.
8. Composition Pictures.
9. Platinotypes or Chromatypes—of any subject.
10. Transparencies.

MIXED CLASS.

11. Photographs in the making of which both Amateurs and Professionals have been employed. *a.* All outdoor views. *b.* Interiors. *c.* Portraits. *d.* Photo-micrographs.

FOR EXHIBITION ONLY.

12. Photographs, of any subject, not entered for competition.

A Special Prize for best entire exhibit—variety of subjects and general excellence.

The exhibits of the competitors, instead of being hung together, were separated and arranged in classes. This was a mercy to

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the jurors, but it was confusing to the visitor, and difficult for the critic.

We have made some notes, however, which we record for the encouragement and help of such exhibitions productive of so much real good. We believe every award was competed for and made, and the competition seemed an earnest and hearty one. No one carried away a prize for want of a contest. All were secured by real merit.

For want of space, what follows will mainly take the form of a catalogue of what we considered the gem or gems of each individual's collection.

One interesting element of the exhibition was afforded by the fact that some time ago the Club indulged in an excursion to some of the picturesque suburbs of Hartford, and the results of the day's work were here shown, thus demonstrating admirably how differently different members of the Club treated the same subjects. This was notably the case with an old ruined aqueduct, as picturesque a Roman campagna subject, with which we coveted a personal wrestle. The different methods of development and treatment in printing were also shown.

We come first to the work of Mr. W. J. Hickmott, President of the Club, whose views of Boston Common and of rustic scenes with bridges, were the gems under class 1. His interiors and exteriors of the State Capitol were unusually fine, and were made upon his own plates. The portrait of the dog "Phebe," was fine, and those of humanity were soft and delicate. Worthy of high praise is the "Charcoal Burning," by S. Hickmott, a brother of the President, and "Views on Parke River." The coal burning was on the hills back of Hartford. Mrs. S. T. Kinney was one of the most generous exhibitors, whose work evinced a strong æsthetic sense, the quality of which was always good. We think she competed for more "classes" than any one else. To me *all* of her gems would occupy quite more space than we have at our command, such as we should like to catalogue the whole. Among those which particularly attracted us were "The Summit of Roger's Rock," "Lake George;" "Ruins of Fort Conderoga;" "It is the Cat;" "A Jolly Camp;" "A Golden-Wedding Group;"

"The Vacant Chair;" "Eventide;" "Never too Late to Learn;" the last four being portrait groups admirably managed.

Mr. C. E. Brainard's "Ice Storm of '85;" Mr. H. O. Warner's "Tariffville Bridge;" Mr. Chas. P. Howard's "Lake Placid;" Mr. W. R. C. Corson's "Garden on Washington St., Hartford, with group of lovely children;" Mr. W. H. Honiss's "Saw-Mill at Tariffville" and "Tumble-Down Brook," were all excellent examples of carefully made work. Conscientious determination to excel in every respect seemed to characterize all these.

Mr. W. E. A. Bulkeley was also a numerous contestant. Among his pictures we particularly admired his treatment of the "Old Farmington Aqueduct;" his "Old Houses of Hartford," were picturesque and well chosen, and his "Lake in West Hartford" a real beauty.

Mr. Albert H. Pitkin had two frames of thirty pictures each. We enjoyed seeing his collection together. It was an admirable one. Among his best were "The Farm-House at Coventry;" "Wood-Chopper's Cabin;" "Royal View;" "Old Windsor;" "Feeding the Colts;" "Trout Brook at Windsor," and "Queen Lake," all of which were well treated.

Mr. H. F. Smith made each of his pictures tell a story, and, as a rule, tell it well. His "Satan's Kingdom" (a wild rocky defile); "Fall's Creek, Ithaca, N. Y.;" "The Old Aqueduct;" "The Creamery" and the "Cider Mill" with millions of apples at hand, were all capital.

Mr. W. H. Lockwood is undoubtedly one of the best workers of the Club. His instantaneous views were particularly fine, and one of these most splendidly caught, "Near Short Beach, Long Island Sound." "The Bathers" was also a fine study. Several of Mr. Lockwood's lovely studies enlarged to 14 x 17, by Albert Moore, were exhibited, and told of the excellent qualities of the tiny originals. The developing, printing, and finishing were Mr. Lockwood's personal work.

Among the best things by Mr. T. Sedgwick Steele, were views of the "Crawford Notch, N. H.;" "Saranac River, N. Y.;" "At Princeton, Mass.;" "Outing," and

"The Den." One could not wish for better results.

Mr. S. E. Clarke's gems were "Salmon River;" "Contocook River;" "Farmington River;" and "The Two Pets," a child and dog—all excellent.

Mr. Elmer M. White's views "On the Farmington River;" "The Old Aqueduct;" "The Wooden Bridge," were the best of his choice collection. The uniformity of Mr. White's results was remarkable, and the quality most excellent. Several of his subjects were printed on platinum—just the class of subjects for that process.

Messrs. White, Honiss, Steele, and Bulkeley, exhibited some choice transparencies from their negatives.

Mr. H. F. Smith exhibited photo-micrographs, which were of excellent quality.

Mr. W. H. Simonds, of Windsor Locks, Conn., sent some fine views of "Camp Robert" and "Salt Island."

The Providence (R. I.) Club also did a neighborly thing and sent a loan collection. The best things in it were a collection of "Babies," by Mrs. E. P. Chapin; "The Old Willow Tree;" "Playing the Guitar;" "Wooring Cupid," and "The Snowball Fight." Altogether it was a nice collection and a nice act to send it.

The San Francisco Amateur Society, always in earnest, was represented by the work of several of its members. It contained some fine gems, of which, with many others we shall hear in the report upon the exhibition of that society to be held soon.

The following is the list of the awards:

Class 1 *a*.—Landscapes with architecture, W. H. Honiss.

Class 1 *b*.—Landscapes without architecture, A. H. Pitkin.

Class 3.—Architecture, W. J. Hickmott.

Class 4.—Interiors, W. J. Hickmott.

Class 5.—Animals, A. H. Pitkin.

Class 7 *a*.—Portraits, H. O. Warner.

Class 7 *b*.—Groups, W. J. Hickmott.

Class 8.—Compositions, Mrs. J. Kinney.

Class 10.—Transparencies, E. M. White.

Class 11 *a*.—Partly amateur and professional, T. Sedgwick Steele.

Prize for general excellence as regards variety of subjects, A. H. Pitkin.

The judges were Messrs. Charles R.

Loomis, Charles E. Willard, and Charles P. Howard.

The officers of this club are:

President, W. J. Hickmott.

Secretary and Treas., Elmer M. White.

Executive Committee, Albert H. Pitkin, Herbert O. Warner, T. Sedgwick Steele.

We shall not soon forget our flying visit to the Club, nor our pleasant reception by its members. Long may it develop.

PERTAINING TO THE



Rules for Exhibitors in our next. Grand Steamer Excursion and Field-Day decided. All goes well.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.

SECOND WINTER LANTERN EXHIBITION,
FEBRUARY 23, 1886.

The exhibition, as arranged by the committee, embraced, first, a series of thirty slides contributed by the Pittsburg Amateur Society; then miscellaneous views sent by members; and lastly, some fifty selected slides from the negatives owned by the International Photographic Exchange Club, making in all about one hundred and fifty. Several of the Pittsburg Society's views showed to good advantage under the powerful lime light; those, perhaps, which attracted the most attention and elicited favorable comment, were "Opening Day at Davis' Island Dam," "Davis' Island Dam," two pretty views; "On the Youghiogheny River;" "Head of Lincoln in colored flowers, Allegheny Park;" "The Old Mill at Fall City;" "Auntie," representing an old darkey leaning against a stone fence; "Family Group at Home," a lot of curiously

and raggedly dressed children standing by the road-side in front of an old, broken-down hut located in the woods; and lastly, "In the Snow," a beautiful snow picture, and one which took the prize for ordinary transparencies at the recent exhibition of photographs at Philadelphia.

The peculiar effect of the sunlight passing at an angle through the branches of the trees upon the freshly fallen snow, brought out in strong relief the fresh foot-marks and altogether composed a picture which was exceedingly natural and pleasant to look at.

Several instantaneous views made by Mr. George H. Cook, were next shown; that of "A Coney Island Steamboat" and a "View from a North River Pier," being among the best. One slide, entitled "Brother and Sister," two children's heads, was particularly good, being very clear and possessing a rich tone. Some copies of other pictures of prominent natural objects in Yellowstone Park were favorably received.

Six very interesting slides of locomotives under full headway, with an abundance of steam and smoke issuing from their smoke-stacks, made by Mr. A. F. Bishop, and loaned by him for this occasion, were remarkable for their sharpness, excellent detail, and good location on the plate. They not only were good technically, but each formed a picture. A combination picture, consisting of a locomotive coming around a curve at the foot of a small hill; on the side of the latter were standing three young ladies in the act of waving a handkerchief to the passing train. It is a clever arrangement when it is understood how it was done. One-half of the plate was exposed to the locomotive and track from one negative; on the other half, the side hill with the ladies in the foreground, from a second negative; and this was so neatly and accurately done that the place of joining could not be seen. After the two separate exposures had been made, the plate was developed. The only peculiarity noticeable was that the ladies were a little larger in proportion than the locomotive, but as a picture it was very pretty, and suggested what can be done in this line.

Three or four other instantaneous views by Mr. Bishop, of steam fire-engines on the

run, showing magnificent smoke effects and wonderful detail of the dark engine, as well as the action of the horses, were greatly admired.

Several good chloride slides by Mr. L. P. Atkinson, were shown, a view near Lake George, entitled "Cottage by the Lake" being very pretty. There were also others commendable for their crisp and clear qualities—"Boat Landing;" "Adirondack Forest," the latter having great contrasts in white and black; some attractive views in Prospect Park, Brooklyn; and two or three excellent instantaneous views of schooners sailing on the East River. In addition to these were duplicate slides: one of the house General Grant died in at Mount McGregor, a bridge, and a ferry-boat, intended to illustrate the difference in tones, which are so easily obtainable with chloride plates. The slides were thrown alternately on the screen. The process Mr. Atkinson employed was to expose a chloride plate by contact to a negative in the usual manner, develop it until all the details in the high lights appeared, and then wash it well in water, and by the yellow light immerse it in a toning-bath.

For rich, warm, brown tones, which appeared to be the most pleasing on the screen, he employed the following:

Acetate of Soda Stock Solution.

Chloride of gold . . .	15 grains.
Acetate of soda . . .	300 "
Saturated solution of chloride of lime . . .	7 minims, or drops.
Water . . .	
	7½ ounces.

For toning, take of the

Acetate stock solution . . .	2 ounces.
Water . . .	12 "

Several slides can be toned in one solution at one time, and it takes but a short time, provided the gold used is of good quality. After toning, the plates are washed and fixed in the usual hypo fixing-bath.

For purple, or black tones, which are obtained according to the time the plate is left in the bath, the following is recommended, which should be used fresh after it is cool:

Chloride of Lime Bath.

Chloride of gold . . .	10 grains.
Powdered chalk . . .	20 "
Saturated solution chloride of lime . . .	} 3 drops.
Hot water . . .	
	20 ounces.

The facility in toning to any desired color, in addition to the absolute clearness obtainable in the high lights, places the chloride plate in the front rank for lantern slides.

A slide made from Mr. Francis Blake's negative of his much-admired cattle picture was thrown on the screen, and produced a good effect.

A number of new excellent marine views were shown by Mr. Mapes. He has been particularly clever in the shots made with his detective camera.

Many slides, embracing yachts at Shelter Island and comical bathing scenes, were shown. "The Music Pavilion at Manhattan Beach," the great "Elephant Hotel" at Coney Island, "Flood Rock Explosion," "The Yacht Puritan" on the ways before the race, were all excellent.

A very amusing slide, entitled "The Produce Exchange," represented two young ladies hurrying along to catch a boat that was about to start from the iron pier. Their attitude was extremely comical. The Produce Exchange building formed the background in the distance. An excellent instantaneous view was of a bather in mid-air in the act of diving.

Perhaps the slides by Mr. Mapes which possessed the most artistic merit were of a "Rustic Bridge in Prospect Park," and "Rocky Shore, Squirrel Island, Maine." They certainly pleased the audience, and therein showed that the maker, though young, will soon become an expert in slide making.

Dr. P. H. Mason showed a slide, entitled "The First Senate House in New York State, Kingston, N. Y.," which was much admired. He stated that it was made from an old wet-plate negative, yellow with age, and of such a character as to make it seem impossible that a good slide could be obtained. Another attractive slide was a copy of the picture "Priscilla," which appeared in the last Christmas number of the *London News*.

Several chloride slides were next shown, made by Mr. Joseph P. Beach from negatives made by President Beach; some of the best were "A Group of Canal-boats and Grain Elevators, at Buffalo, N. Y.," "Buffalo Soldiers' and Sailors' Monument," two or three different views of the "Hartford, Conn., Capitol," "Wheeler's Mill Pond, Stratford, Conn.," "Apple Trees in Bloom," and "A Marriage Ceremony," the latter negative and slide being made by Mr. Joseph Beach, and represented the bridal party arranged in a greenhouse, in the same relative positions as when the real ceremony took place.

Following these were shown the slides sent by Mr. G. H. Ripley, made upon the new Ripley Transparency Plate, all having been developed with the pyro soda and potash developer, and comprised the selected English views belonging to the International Photo Exchange. Considering the difficulties which had to be overcome in making duplicate negatives from weak transparencies, it was remarkable how well the new slides came out, many made from transparencies being very fine.

At the termination of the formal programme the President announced an adjournment, but gave notice to any who cared to stay, that a few slides brought by other members would be shown. He then operated the lantern, and several slides by Mr. Brush, Mr. A. Bedell Benjamin, Mr. R. Baker, Mr. Levison, Mr. McNeil, and Mr. D. Wright, were passed through. The slides by the first three gentlemen were especially good, Mr. Benjamin's consisting of views in Stratford, Conn.; Mr. Baker's were made by the collodion wet process. One of a schooner and tug on the Harlem River was very clear in the high lights, and another view of an old mill on the Bronx River was excellent; Mr. McNeil had examples of fine cloud effects. A colt in the act of kicking, by Mr. Levison, was sharp and excellent, showing the fact that the fetlocks of the front feet rest partially on the ground when the hind legs are extended up.

Mr. D. Wright showed a slide of fishermen landing in the surf at Seabright, which was especially good.

It is needless to add that the few slides

shown by Mr. Brush were perfect axamples in their way, and elicited favorable comments on all sides.

The smooth working of the lantern and the careful management of it by Dr. Mason, together with the great variety of pictures shown, made the exhibition as a whole, quite interesting and entertaining.

At 10 P. M. the audience dispersed.

A VISIT TO THE EAGLE DRY PLATE COMPANY'S WORKS.

WITHIN the precincts of the suburban city of Greenville, on the N. J. Central R. R., the Eagle Dry Plate Company's eyrie is located, where the new, red-label dry plates, quick as the king bird's flight, are incubated and hatched. One of the most interesting experiences which we have had for a long time was a visit to this establishment, in company with Mr. G. Gennert, the veteran photo. merchant and trade agent for the new product. On the way we compared our Oriental experiences, our photographic experiences, and our ages, until Mr. Gennert proved himself old enough to be our paternal, and we were compelled to acknowledge him the veteran. Nearly forty years he has been connected with American photography, first as an assistant to his brother in the Daguerreotype Plate Manufactory of the Scovill Manufacturing Company, at Waterbury, Conn. He was the first to bring the *carte de visite* from Paris, and to show it to the fraternity in America—the first to introduce “Brilliant Albumen Paper,” etc., the first to make known the Eagle Dry Plate.

Arrived at Greenville, we soon beheld the objective point of our visit, “set on a hill,” in the distance—a fine one story building 25 feet by 50 feet, with outward accessories in the shape of an ice house towering above all, and a well 24 feet deep, with 18 feet of spring water, sunk far below all.

The interior arrangement of the factory is admirable. Every attention was given to secure economy of time in the handling of the plates during the process of manufacture. No steps are wasted in carrying back and forth. Each stage of the proceeding is progress toward the end. The

glass stock is received direct from the Belgian steamship into the basement. The boxes are opened, and are, with the straw, thrown into the engine furnace, near at hand, and burned; so that there is no accumulation of debris. The glass is then freed from dust, placed upon the elevator, and hoisted to the floor above.

No smaller size than 8 x 10, or larger than 20 x 24, is used. After it is cut to the desired size it is cleaned by two revolving washing machines, and then substratized and placed in the drying rack. Over 5000 pieces per day can thus be handled and made ready for the coating.

After drying, the plates of glass are placed on movable racks in closed cupboards, and by machinery carried into the coating room, being passed through hot air chambers *en route*, so that, on their arrival at their destination, they are warm enough to receive the emulsion. Before proving this by an actual visit, we halted at the laboratory of the Chief *Hexenmeister* (alchemist) of the establishment, Mr. H. Norden, of St. Louis fame, whom we found busied with his graduates and scales, and gigantic jars, and pitchers, and percolators, and filters, and glass rods, and chemicals, and mixtures, playing upon them as though they were but the keys of a piano. Yet with what precise care each manipulation is conducted all may judge from the excellent, uniform results he has always produced. It seemed like a scene from Macbeth or a study from the den of the Witch of Pompeii, only we knew that Mr. Norden's philters, though quite as potent as those of old, were not so poisonous. As innocent and useful is his vocation as that of the ancient paper maker of whom the poet sang:

“Six hundred men are set to work by him

That else might starve, or seek abroad their bread,

Who now live well, and go full leave and time,
And who may boast they are with dry plates fed.”

At one side of Mr. Norden's den is a narrow door, invisible to the novice. It was suddenly opened, our hand was seized by some satanic vassal and we were quickly drawn into a dark passage-way. Lead in a

zigzag direction, we came at last to a large chamber dotted here and there with red lights. One of these revealed the features of our leader who was Herr Wuestner. Here his fellow sheolites were clashing and coating, and twirling, and levelling the warmed glass plates, each one at the rate of two per minute. It was a picturesque sight and we soon warmed up to it. After the film of emulsion had been spread upon the plates they were laid upon a movable track made of cords passing over a system of glass rods, and by slow-moving machinery carried through dark, cool passages which "set" the films on the way to the room of the inspector. Each plate is most carefully examined, and when perfect is passed to the packers, who place the paraffined separators between them and wrap them in brown and black paper, and then send them out to the light, where they are packed in boxes and labelled for the market.

Back and forth our conductor led us, causing us to lose all confidence in our geography and rendering our compass a mockery. Once he took our good right hand (with which, thank heaven, you see we are still able to write) and dipped it about in a tank of chilling water. We could not see, but soon we touched a great swollen spherical body, which bounded about and pulsed in the water like a porpoise. It was only the bag of emulsion, washing in moving, changing water, but we shudder whenever we think of the sensation it caused.

Then the great jars, into which strong men were diving with thick glass rods, the red lanterns which bobbed about from place to place, all suggested the policy of making our departure—and we did as soon as we could recover our geographical reckoning. We took lessons in ventilation (which is perfect here); recognized the fact that *cleanliness* is the first law here; had a negative made under the neat little skylight upon a plate just coated; decided that if users of dry plates knew how much thought and labor it cost to produce them they would not growl over the amount of pocket disinfecting they had to submit to in order to secure the "quickest and the best." And what is

quicker than the eagle and where is there a better bird?

We enjoyed the visit to the "Eagle" works, and we commend the product thereof to our patrons.

OUR PICTURE.

THE modern dry plate has placed a power in the hands of the photographer, which not only enables him to expedite, but to secure much more picturesque effects than it was possible for him to obtain a few years ago. Admirable examples of this have already been given our readers in our issues for middle January and middle February—the one in portraiture and the last in animal photography. We now present another example in a still different department of work—a marine view.

It is from a negative by Mr. H. S. Wyers, Yonkers, New York, and is entitled "The Toilers of the Sea." It is a pleasant conception of our artist photographer, and well carried out. Marine views are plenty now, for the reason stated in the beginning, but very often they are without interest except as marvels of light and shade and for the suggestions which they give us of the ever wonderful and mysterious ocean; or, as Mrs. Hemans puts it:

"Unmixed with aught of meaner tone,
Here nature's voice is heard alone:
When the loud storm, in wrathful hour
Is rushing on its wings of power,
And surges foam and billows break,
And rocks and ocean caves around,
Reverberate each awful sound;
That mighty voice, with all its dread control,
To loftiest thought shall wake thy thrilling soul."

There seems to be an added interest always when figures, or even a bit of a wreck are combined. Such the artist has happily introduced into "our picture," and with admirable choice and skill.

The story is well told. The fisherman has been "outside" since daylight, plying his instruments of capture to secure the finny families of the sea, and now, returning, is engaged with his helpers, in hauling his staunch vessel ashore with its weighty

freight. The action of the figures was well caught, the moment for exposure being chosen with artistic sense and skill.

The composition is a capital one, and could scarcely be better arranged after much care. Mr. Wyers has made a specialty of this class of work and has in his portfolios a number of admirable studies, which seem to verify what Moore has so aptly said in his "Boat Glee."

"Nothing is lost on him who sees
With an eye that Feeling gave—
For him there's a story in every breeze,
And a picture in every wave."

So is it with the photographer of "feeling"—possessed of artistic sense—which is "feeling." Pictures will present themselves to him which others will not see.

In presenting the camera to bits of "the restless main," a higher effort should guide you than the mere desire to trick the waves sharply upon your plate before they break into spray and dash out their brains upon the beach.

The solemn mystery of the sea is added to by contrast with bits of life, or ruin, or wreck, such as you can combine upon the shore. Effort should be made for variety. And there is still more in this picture for us to learn. It is an admirable example of another photographic triumph in the printing department of our work, gelatin printing in color, by the Photogravure Co., 853 Broadway, New York. We have all seen plenty of gelatin prints approaching the color of photographs, by the artotype, phototype, and other processes, but by means of the skill of Mr. Ernest Edwards, the Superintendent of the Photogravure Co., we are given a closer imitation of nature than even the photograph can give. Almost any color and any shade can be secured by this process; even a combination of colors, and with great uniformity in the results. We think all will agree that this new departure places a means in the hands of our craft of largely multiplying their works and increasing their business. We mean to make our magazine useful in bringing these facilities to notice, and next month shall present something by a new process absolutely unknown to you as yet.

CORRESPONDENCE.

HOW THE S. O. S. P. WORKS.

MR. E. L. WILSON.

DEAR SIR: It is with the greatest pleasure that I enclose you the action of S. O. S. P. upon receipt of your letter of the 16th. It encouraged us more than anything we have yet received, and I will be able to write you some progressive results before long, and note you anything of merit. (There are two old men here in the business who have been enemies for years, but who are now the best of friends and in each other's dark rooms, the result of the S. O. S. P.) I write this as an illustration of the effects of this order.

Very respectfully,

A. B. RUGG,
Secretary.

MINNEAPOLIS, March 4, 1886

MR. E. L. WILSON.

DEAR SIR: At a meeting of the S. O. S. P., March 1, 1886, the following resolution was unanimously carried:

In consideration of the kind and encouraging letter received by this Order from Edward L. Wilson, editor of the PHILADELPHIA PHOTOGRAPHER, and his past endeavors to elevate the photographic art, and his recent coöperation with us in our honest endeavors to combine and elevate the profession throughout our country: A vote of thanks is extended to him from this Council, and the Secretary is authorized to send a copy to the PHILADELPHIA PHOTOGRAPHER.

A. B. RUGG,
Secretary S. O. S. P. No. 1.

MINNEAPOLIS, March 4, 1886.

OBITUARY.

JOHN A. SCHOLTEN.

ANOTHER veteran is gone. Our good old friend, John A. Scholten, the eminent photographer of St. Louis, the warm-hearted friend, has suddenly died and we shall see him no more.

For eighteen years we enjoyed his friendship and admired his talent. When the "Bromide War" occurred in 1867-8 he was one of the most earnest combatants, and was an earnest worker in the old N. P. A.

We shall miss him during the Convention, and his death is a loss to us all. We publish below some particulars concerning him from the *St. Louis Republican*, of March 8, which was accompanied by a photo-engraving of our friend. This is all we can do to perpetuate his memory, but in our case even that is unnecessary. Who shall take the place of such a noble disciple of our art?

"Mr. John A. Scholten, whose picture appears above, died yesterday afternoon (March 7), at his residence, No. 31 Nicholson Place. Mr. Scholten was last seen at his place of business on Thursday afternoon of last week. On the evening of that day he was taken suddenly ill, and going to his home took to his bed. The indisposition developed into an acute attack of pneumonia, and finally death resulted from the immediate effects of a congestive chill. He was in his 58th year.

"Mr. Scholten was well known in this and in several European countries in his connection with photography and kindred arts. He was born at Rees, a Prussian town on the river Rhine, where he attended school until he had attained the age of fourteen years. At that time his parents emigrated to Hermann, Gasconade county, this State. Three years of his life were spent at Hermann, when he came to St. Louis and entered the dry goods store of Mr. True Worthy Hoyt, at that time a successful merchant in this city. In 1857, Mr. Scholten quitted the dry goods business and entered the profession in which he has made himself famous all over the United States. His business grew to such an extent that he was forced to seek larger and more commodious quarters, and the present location of his large gallery, at the corner of Tenth and Olive streets, was the site chosen. From this time his business increased with his fame until he became one of the best known artists in the profession. The move to the present location was made in 1874, and on New Year's night, 1878, fire destroyed the building and fixtures, and business was resumed in May, 1879, at the same stand with all the latest and most approved processes of celebrated eastern galleries in connection with his own. He applied himself with un-

reserved devotion to his calling and has been an enthusiastic laborer, constantly experimenting and perfecting arrangements for a more successful prosecution of his efforts for the improvement of his art. His investigations have been the source of the introduction of many new and meritorious methods and processes of pronounced and permanent value to his profession.

"He was the first to introduce the popular *carte de visite* in this city, and through liberal, yet judicious expenditure of both time and money, has materially contributed to the development of the photographic art in all portions of this country. He was held high in the estimation of the citizens of the community and the loss will be keenly felt."

WORLD'S PHOTOGRAPHY FOCUSSED.

THE Berlin court has now before it a singular case of counterfeiting. Owing to the increasing demand for photographs of the Emperor William, a photographer who had too little influence to obtain a sitting from his sovereign resorted to a trick which afforded him considerable profit during the recent anniversary festivities. He put on a uniform, and sat for the Emperor, although he bore no resemblance to him; but this defect was easily remedied by reproducing on the plate the head of the Emperor taken from an original photograph. Not satisfied with this, the photographer was bent on representing the Emperor having his great-grandchild on his knees. Nothing was easier: The artist got his own son to sit, and was so successful that by retouching the negative it was easy to convert him into a pseudo prince. The police, having discovered the fraud, had him arrested for selling goods under false pretences. The defendant's lawyer stated that the greater number of the photographs sold in Germany for the great glory of celebrated persons were not authentic, and mentioned the case of a police agent of Berlin, who is well-known as a "sitter for the Prince Bismarck." Original portraits, he said, could not be sold at the very low price asked for the imitations, and the patriotic purchaser does not care so that the likeness is guaranteed.

Editor's Table.

ITEMS OF NEWS.—Mr. LEON VAN LOO, Cincinnati, offers one of the best opportunities possible; perhaps some foreign firm will take it. Messrs. G. A. DOUGLASS & Co are already doing a fine business. Their first circular has the following intelligent heading: *Are you a subscriber to any photographic journal?* Mr. BUCHANAN, of BUCHANAN, SMEDLEY & BRONLEY, Philadelphia, Mr. L. W. SEAVEY, New York, Mr. D. H. ANDERSON, New York, and Messrs. P. H. ROSE and G. W. MURDOCK, Galveston, Texas, honored our new office by calling recently. Mr. S. T. BLESSING, New Orleans, La., issues a catalogue of novelties. The prize camera and lens of the Boston Photographic Society has at last been awarded to Mr. E. J. FOSS, Malden, Mass., for his studio construction. The BÖHMKE & Co. Aplanat lens, Mr. G. GENNERT agent, is winning favor deservedly. The AIR-BRUSH MANUFACTURING Co, now have a branch office at room 14, No. 3 Union Square, New York, managed by Mr. WILL A. SUSMITCH.

DIED.—At Grosse Isle, Mich., February 28th, Mrs. SARAH A. HEATH, relict of the late ORVILLE S. ALLEN, and mother of Messrs ORVILLE and WILLIAM H. ALLEN, of Detroit.

THE PHILADELPHIA PHOTOGRAPHER, without exception, is the most artistic and ably edited photographic publication with which we are acquainted.—*Camera, Field, and Book.*

THE CROSSCUP & WEST ENGRAVING COMPANY, now located at 907 Filbert Street, Philadelphia, have sent us some admirable examples by the new process. See "Specialties."

THE "Waterbury Tray," sold to the trade by the SCOVILL MANUFACTURING COMPANY, and manufactured by the AMERICAN OPTICAL COMPANY, is of wood, of large dimensions only, carefully coated, and warranted to stand all usage. Your dealer has them.

MR. THOMAS PALETHORP, Greenville, Mich. given a column of praise in the *The Daily all*. He is a regular attendant upon the conventions; no wonder, therefore, that he is commended for his good work.

Long's Art of Making Crayon Portraits on Solar Enlargements has had a revived sale lately for some reason or other. We mail it for fifty cents.

THE good humored correspondent of the *St. Louis Photographer*, Mr. A. H. ST. CLAIR, belabors us for publishing Mr. T. H. BLAIR's article on "Cheap Prices," and even suspects us of writing the article. He only need write to Mr. BLAIR (BLAIR TOURNOGRAPH COMPANY, Boston) to find out the truth. Because we publish a paper it is no surety that we endorse it. How is it that during the years 1884-5, when each month, nearly, we made a bold attempt to keep up prices Mr. ST. CLAIR never gave us one word of commendation? Is it not strange that some good people only notice you when you displease them? You may feed them forever and never get one word of thanks or commendation. We are for the best prices you can get every time, but we take a common-sense view of things, too, when we have to.

No news from the P. A. of A. Committee for some time, but everything is going along nicely.

MR. F. YORK, of London, has been entertaining his fellow members of the "South London" with an illustrated lecture on the "big things" he saw in America. Among other things he speaks of our clear atmosphere. "To give you an idea," he says, "I could see from the observatory at Portland, Me., Mt. Washington, in New Hampshire, eight thousand feet high, a distance of eighty miles, and so clear was it that the snow drifts were distinguishable."

On the morning of March 4th (our birthday) we stood in front of the signal station on Mt. Washington summit and clearly saw the ocean at Portland, with the smoke of passing steamers drifting over the long line of blue water. What we saw of snowdrifts, ravines, towns, mountain hotels, hundreds of mountains and passing trains, and so on between—it would take a wonderful volume to contain a list of them. We had a splendid climb up and down, and will tell more about it when we present our promised view of the "North," taken on the summit of our highest northern peak."

Good reading and lots of it at marvellously low prices. See special "Bee," offer in our advertisement. The chance won't last long.

Das Glashauss und was darin geschieht is a translation of Mr. H. P. ROBINSON'S capital work, just made and published by Dr. ED. LIESEGANG, Dusseldorf, Germany.

MRS. FITZGIBBON kindly belabors all her fellow editors for failing to acknowledge her courtesy and kindness in supplying them copies of her supplement giving information about the Convention. It is too bad about the others. We narrowly escaped (see our last issue), and the escape would have been even less narrow but for our week's "outing" on top of Mt. Washington.

Anthony's Photographic Bulletin, 1885, vol. xvi., has been sent us by the publishers, in handsome brown cloth binding, gilt. It is handsome, picturesque, and valuable, and will often need to be consulted by us in our work.

THE Young Women's Christian Association, No. 6 East Twelfth Street, New York, has free classes in retouching photographic negatives and photographic coloring, and also undertakes to supply work for the trade. It is a worthy and useful institution.

THE IOWA CITY DRY-PLATE COMPANY are preparing us a fine illustration at their studio in Iowa City. Particulars soon.

PICTURES RECEIVED.—From D. H. ANDERSON, New York, fine cabinet Portraits of the tragedians McCULLOUGH and SALVINI. From Messrs. ABELL & SON, Portland, Oregon, a variety of sizes of their admirable work, principally on Cramer plates. The subjects are carefully posed and lighted, and the development of the plates shows the work of a thoughtful master. A boudoir, called "Repose," of a child sleeping with its arm and head resting on a dog, is a really fine composition. Mr. H. BUTLER, Vermillion, Dakota, has made our office dangerous by some capital groups of Indians. We keep them in our draw in lieu of a revolver. Mr. B. T. RICE, Frankfort, Kansas, has surprised us with some of his recent excellent work, which is ahead of anything we have had from him. Mr. NEWCOMB, Salt Lake City, favors us with several portraits of pretty young girls, excellently caught by the camera "Gentile." A Companion to "Themasses" is received from Mr. H.

S. WYERS, Yonkers, N. Y., Called "A Corner in Pork." The mother o' pork has stepped into the trough for a peaceful sup of swill, but her eight babies pester her by clamoring for their share. They are splendidly caught in the very act, and show business from their noses to the toes of their nether hoofs.

THE Egypt Exploration Fund, for encouragement of the work for the discovery of Naucratis and Hellenic art explorations at Zoan and in Goshen, is worthy of consideration by the interested. Five dollars entitles the donor to one of the following publications: *The Store City of Pithom and the Route of Exodus*. By EDOUARD NAVILLE. With thirteen plates and two maps, 1885. *Tanis*, Part I. 1883-4. By W. M. FLINDERS PETRIE. With nineteen plates and plans. 1885. *Naucratis*. 1884-5. By W. M. FLINDERS PETRIE. With about forty plates and plans. 1886. *Goshen*. 1884-5. By EDOUARD NAVILLE. *Tanis*, Part II. By W. M. FLINDERS PETRIE. With translations of hieroglyphic inscriptions in Part I. Address Rev. WILLIAM C. WINSLOW, Vice-President; Honorary Treasurer for the United States, 429 Beacon Street, Boston, Mass.

THE MORRISON DETECTIVE LENS.—SCOVILLE MANUFACTURING COMPANY announce that after numerous experiments and a complete overhauling of preëxisting theories, a lens invaluable for detective camera purposes has at length been placed on the market, in which is combined the best features of all contemporary lenses intended for similar purposes.

AUSTRALIA AGAIN TO THE FRONT.—Last month we reproduced Mr. WILLIAM CARGILL'S letter ordering twenty-one subscriptions to our magazine for 1886. Under date of January 28th, Mr. CARGILL writes: "Kindly increase to twenty-four copies. Post also six copies more of *Mosaics*, 1886."

MR. CROUGHTON'S ART PAPER.—Owing to loss of his manuscript and drawings in the mail, we were obliged to suspend Mr. CROUGHTON'S series of art papers. They will be resumed in our next issue.

MR. THOS. PRAY, JR., the well-known contributor to our columns, is now General Superintendent of the Mather Electric Co., Hartford, Conn. Possibly we may hope now for an easier application of the great light to lanterns and studios.

DR. JANEWAY'S "Question Box" report to the Amateur Society, will appear in our next issue.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

WILLIS & CLEMENTS,

25 NORTH SEVENTH ST., PHILADELPHIA, PA.

BUCHANAN, SMEDLEY & BROMLEY,

General Agents for the sale of materials.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and reducers, 392 Bowery, or 487 Eighth Avenue.

I AM pleased to inform my friends that I have secured commodious quarters for a stock of photographic merchandise, and shall be ready in a very short time to serve them.

I attended the meeting of the Photographic Merchants' Board of Trade in New York, on the instant, during which time I selected fresh goods and made immediate shipments. A full set of amateur outfits will be furnished.

Dr. John Nicol will locate his office with us and will be at the service of all requiring photographic information.

Asking your indulgence for the short delay necessary in arranging a new business, I desire your patronage, and shall be pleased to see you in our warerooms.

Yours truly,

GAYTON A. DOUGLASS.

CHICAGO, February, 1886.

THE best artists and solar printers in the United States and in Europe use platinotype paper for large and small pictures. This paper is manufactured for Willis & Clements' Platinotype Process, and is the *purest and most desirable* grade of paper made in the world for ink, carbon, or pastel. Samples free.

BUCHANAN, SMEDLEY & BROMLEY.

Importers, 25 N. Seventh St., Phila.

WANTED.—A strictly first-class operator and reducer. No other need apply. Address

D. BROWN,
15 & 17 North Pearl St.,
Albany, N. Y.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

MOsaICS IS NEARLY GONE. READ THIS.

There is no let up in the number of answers to our advertisement in the *Mosaics*: still they come almost every mail. We are ready for twice as much space next time.

BUCHANAN, SMEDLEY & BROMLEY,

25 N. Seventh Street, Phila.

EVERY photographer in want of excellent lenses, for *any purpose*, will best serve his interest by consulting the new illustrated price-list of Messrs. BENJAMIN FRENCH & Co. before purchasing.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises, or \$4500 cash without the negatives. Address

LEON VAN LOO,

148 W. Fourth Street,
Cincinnati, O.

NOVELETTE CAMERA.—We are now ready to furnish these in 8 x 10, 6½ x 8½, 5 x 8, and 4 x 5 sizes. They are lighter and more compact than the novel camera, using our patent improved dry-plate holder of same size as the Fairy Camera. They all have the patent spring-hook for holding the bed rigid when extended, and are finely finished. Price same as for the Novels.

E. & H. T. ANTHONY & Co.,
591 Broadway, New York.

CARD TO THE PUBLIC.

THE undersigned, referring to the circular from Mr. Edward L. Wilson, before published, ask attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at same address.

With the most extensive and costly apparatus ever employed in such work, a splendidly accounted studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

For amateurs we instruct in the art, develop plates, print, and finish.

For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France, and England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

The Centennial Exhibition, 1876, New Orleans Exposition, 1884-85, a fine and new series of

"The Sunny South," and a large miscellaneous collection of comies, portraits and views.

Foreign and American slides supplied for Mr. Wilson's celebrated *Lantern Journeys*, described in volumes 1, 2, and 3.

Agents for Wilson's *Lantern Journeys*, and other publications.

Stereoscopic and Imperial (8 x 10) views of the above-named subjects promptly supplied.

Soliciting your patronage, and believing we can maintain the world-wide reputation of our predecessor, we are Truly yours,

ROBERTS & FELLOWS, 1125 Chestnut St.

PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employés, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON

PHILADELPHIA, Jan. 1, 1886.

BUCHANAN'S

READY DEVELOPER

FOR

EASTMAN'S BROMIDE PAPER.

BEST, SUREST, AND MOST BRILLIANT

Send for circular. Prepared only by

BUCHANAN, SMEDLEY & BROMLEY,

PHOTO STOCK MERCHANTS,

25 NORTH SEVENTH ST., PHILADELPHIA

FOR ALMOST NOTHING.—I have a quantity Chance's A No. 1 glass, the best manufacture which I will sell at *my gallery* for one dollar per hundred for 5 x 7 and 5 x 8, and two dollars per hundred for 8 x 10.

GEO. G. ROCKWOOD,
17 Union Square, New York

INGLIS & CO.

Manufacturers of

THE TRIUMPH DRY PLATE,

106 COURT STREET, ROCHESTER, N. Y.

We are taking old Negatives at the following prices in exchange for the Triumph Dry Plate:

UNWASHED.		WASHED AND SELECTED.	
5 x 7, each, . .	$\frac{1}{2}$ ct.	5 x 7, each, . .	1 ct.
5 x 8, " . .	$\frac{1}{2}$ "	5 x 8, " . .	1 "
$6\frac{1}{2} \times 8\frac{1}{2}$, " . .	$\frac{3}{4}$ "	$6\frac{1}{2} \times 8\frac{1}{2}$, " . .	$1\frac{1}{2}$ "
8 x 10, " . .	1 "	8 x 10, " . .	2 "
10 x 12, " . .	$1\frac{1}{2}$ "	10 x 12, " . .	3 "
11 x 14, " . .	2 "	11 x 14, " . .	4 "

Larger sizes in proportion.

Pack securely in stout boxes, bill them window glass, and ship by freight to

INGLIS & Co.
Rochester, N. Y.

FOR SALE.—Cheap, complete outfits for $4\frac{1}{2} \times 3\frac{1}{2}$, 5×4 , and 8×5 plates. For particulars,

Address "E,"

Office of PHILADELPHIA PHOTOGRAPHER,
853 Broadway, New York.

FOR SALE.—At great advantage, one 8×10 single, wide-angle Dallmeyer lens; perfect.

Address B. W. K.,
care PHILADELPHIA PHOTOGRAPHER.
853 Broadway, New York.

DEAR SIR: Please send us three copies of *Long's Art of Making Crayons on Solar Enlargements*, and oblige

BUCHANAN, SMEDLEY & BROMLEY,
25 N. Seventh Street, Phila.

FOR SALE.—Strictly first-class gallery; best location on Broadway. Address

E. L. WILSON,
853 Broadway, New York.

Patent Improved Telescopic Folding Tripod, with automatic leg fastenings. Perfectly rigid, the legs being held in position firmly, and it is impossible for them to become unfastened until the spring that holds them in is pressed back. This spring also forms a washer for the tripod screw.

E. & H. T. ANTHONY & Co.,
591 Broadway, New York.

TO PHOTOGRAPHERS.

We have recovered from the disastrous fire which overtook us on the night of January 25th, at 715, 717 and 719 Arch Street, and are now located at 907 Filbert Street, with new and improved apparatus, and ready to fill orders in either of our three methods of engraving; wood-engraving, photo-engraving, or our Ives Process.

Our work retains tone and spirit of the artist's touch in a manner that could not be approached by the pen or graver.

Besides the advantages respecting quality, the rates are lower than any other method of engraving.

THE CROSSCUP & WEST ENGRAVING CO.,
907 Filbert Street, Philadelphia.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a man twenty-eight years of age. Has had five years' experience. Is a good retoucher and crayon worker and capable of taking charge of office, having managed one for three years. California or a warmer climate preferred. Address A. B. Buell, Chautauquus, N. Y.

As operator, printer, and toner. Best of reference given. Address W. C. Bleins, Cobbskill, New York.

By a good operator an opportunity to lease a leading gallery. Address D. Abee, No. 26 Saxton Block, Canton, O.

By a young man, as printer and toner in a good gallery. Have had six years' experience. Understands German. Address A. J. Kreuzer, Hartford, Conn.

As a first-class retoucher or printer, who can operate. Is desirous of a steady situation. Address F. S. Sloan, 126 E. Fourth Street, Dayton, Ohio.

As photographer. Has had ten years' experience, or would rent a gallery. Address Box 258, St. Catherines, Canada.

As printer and toner. Can give first-class references and samples of work. Address N. R. Brower, Syracuse, N. Y.

By a young lady as retoucher or to attend reception-room. Address L. M. A., 41 Florence Street, Somerville, Mass.

By a young view operator of experience, after June 1st. Wages, \$18.00 per week. Address Photo. Operator, McKinnon Hotel, Masonville, N. Y.

As printer and toner, can also operate. Address H. W. Eckenroth, Box 1092, Wooster, O.

GAYTON A. DOUGLASS & CO.

MERCHANTS IN

SUPPLIES FOR PHOTOGRAPHY

185 & 187 Wabash Ave.,

CHICAGO.

HYPOSULPHITE OF SODA FOR PHOTOGRAPHERS.

CHAS. A. W. HERRMANN,
99 Water St. New York

PHOTOGRAPHERS' ART VINE.

Beautiful and durable **Ivy Vine** for scenic effects; manufactured especially for photographers. All natural vines and leaves imitated. Send for circular. Special rates to dealers in photographers' supplies.

S. G. SHERWOOD,
232 Vermont St., Buffalo, N.

C. H. CODMAN & CO. Photographic Stockdealer

Sole Agents for the **NEW ORTHO-PANACTINIC LENS**, Moor's Photographic Enamel, the Perfect Mounting Solution for mounting Photographs on the thinnest mount without wrinkling.

New England Agents for American Optical Co.'s Apparatus. The best in the world. Send for Price List.
34 Bromfield Street. BOSTON, MAS

The Photo-Gravure Company,

—OFFICE—

853 BROADWAY, NEW YORK.

(The " Domestic " Building,
Broadway and 14th Street.)

WORKS: Third Avenue and Tenth Street, Brooklyn, L. I.

PRESIDENT, ERNEST EDWARDS, — late of the Heliotype Printing Company, of Boston, and Inventor of the Heliotype Process.

VICE-PRESIDENT AND TREASURER, WALTER B. MOORE,
— Editor, " The Public Service of the State of New York. "

SECRETARY, W. I. SCANDLIN, — late Manager New York Office,
Heliotype Printing Co.

THE PHOTO-GRAVURE COMPANY, with an office fully equipped for PHOTO-MECHANICAL PRINTING AND PUBLISHING, are now producing results unsurpassed by any, Plain and in Color. Their specialties are ART and SCIENTIFIC work and ART CATALOGUES, produced by the following processes :

PHOTO-GRAVURE, — The process of Mr. Ignatz Oesterreicher.

GELATINE PRINTING, — Heliotype, Autoglyph, Indo-Tint.

PHOTO-LITHOGRAPHY, — Osborne's process.

PHOTO-LITHOGRAPHY IN HALF TONE, — Mr. Edwards' process, based on Meisenbach's method.

PHOTO-ENGRAVING, — Swelled gelatine process.

PHOTO-ENGRAVING IN HALF TONE, — Meisenbach's process as worked by Mr. Edwards.

ESTIMATES GIVEN ON APPLICATION.

The Eagle Paper Keeps its Place as Leader.

Try the New Colors of the Leading

DRESDEN ALBUMEN PAPER.

IMPROVED

EXTRA-BRILLIANT PENSEC,

10 KILOS.



10 KILOS.

EXTRA-BRILLIANT NEW ROSE.

It Possesses the Highest Durability of Color.

It Never Blisters. It Keeps Well after Silvering.
It Tones Easily. It Gives the Most Vigorous
and Brilliant Prints. It is the Best
Selected Paper.

It is Always Uniform and Reliable, and has the Least
Objectionable Water-Mark. The Majority
of Artists will Have It.

SAMPLES FREE ON APPLICATION.

For Sale by all Stockdealers in the United States
and Canada.

G. GENNERT,

Importer,

**No. 54 EAST TENTH STREET,
NEW YORK.**

THE ARGENTIC DRY PLATE.

A Splendid New Picture.

Among the desirable advantages are rapidity, cleanliness in manipulation, permanency, certainty of good results, absence of all pinholes, metallic stains, discoloring, fog, frilling, and other dry-plate ills. Pictures deliverable ten minutes after the sitting. Full directions with each box.

LIST OF SIZES AND PRICES.

2 dozen $3\frac{1}{4} \times 4\frac{1}{4}$, per box, . \$0 90	2 dozen 5×8 , per box, . \$2 25
2 " 4×5 , " . 1 25	2 " $6\frac{1}{2} \times 8\frac{1}{2}$, " . 3 75
2 " $4\frac{1}{4} \times 5\frac{1}{2}$, " . 1 50	2 " 7×10 , " . 4 00
2 " $4\frac{1}{4} \times 6\frac{1}{2}$, " . 1 80	2 " 8×10 , " . 4 50
2 " 5×7 , " . 2 00	1 " 10×14 , " . 4 00

A splendid opportunity to increase business is offered by the New Argentic Dry Plate.

FOR SALE BY ALL DEALERS.

PHENIX PLATE CO.

Manufacturers,

WORCESTER, MASS.



IN THE

PHOTOGRAPHIC TIMES

FOR MARCH

WILL APPEAR A SERIES OF ARTICLES ENTITLED

"THE ART IN IT,"

WRITTEN EXPRESSLY FOR ITS PAGES BY

W. J. STILLMAN.

W. K. BURTON'S series of "NEGATIVES ON PAPER," commenced in Feb'y, will extend into the March issues, as will also the "NEW ORTHOCHROMATIC METHOD," by VICTOR SCHUMANN. Valuable *practical* articles will also appear in the March weeklies, written by such deservedly popular photographic writers as G. WATMOUGH WEBSTER, F.C.S.; Dr. CHARLES EHRMANN; HENRY M. PARKHURST; Dr. AUGUSTUS LE PLONGEON; Prof. H. W. OGEL, Ph.D.; H. EDWARDS-FICKEN, and others. All this will be given with the regular EDITORIALS, SOCIETY NEWS, CORRESPONDENCE, NOTES AND QUERIES, AND COMMERCIAL INTELLIGENCE.

RECAPITULATION FOR FEBRUARY.

Paper Negatives.....	By W. J. STILLMAN.
About Societies.....	By ANDREW PRINGLE.
A New Orthochromatic Method.....	By VICTOR SCHUMANN.
Negatives on Paper.....	By W. K. BURTON.
Let Well Enough Alone.....	By CHARLES WAGER HULL.
Generation of Oxygen Gas.....	By PROF. H. D. GARRISON.
A Dead Black Paint.....	By C. D. CHENEY, D.D.S.
Aristotype.....	By F. W. GELDMACHER.
Researches on the Chemical Action of Light.....	By DR. J. M. EDER.
A New Magnesium Light.....	By F. C. BEACH.
Enlarged Reproductions.....	By G. HANMER CROUGHTON.
Formulas for Toning.....	By H. M. GRIDDALE.

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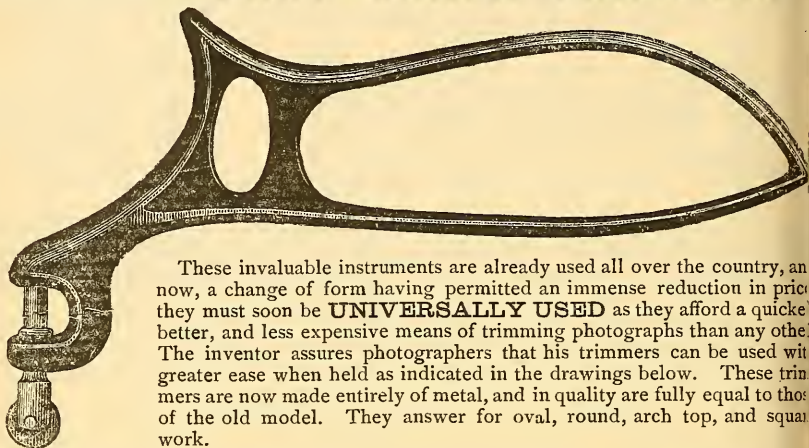
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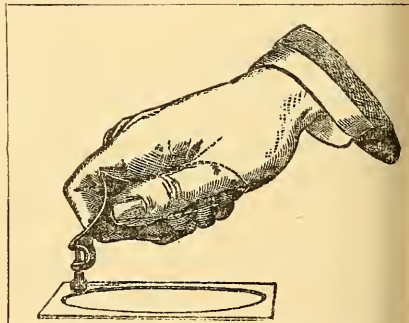
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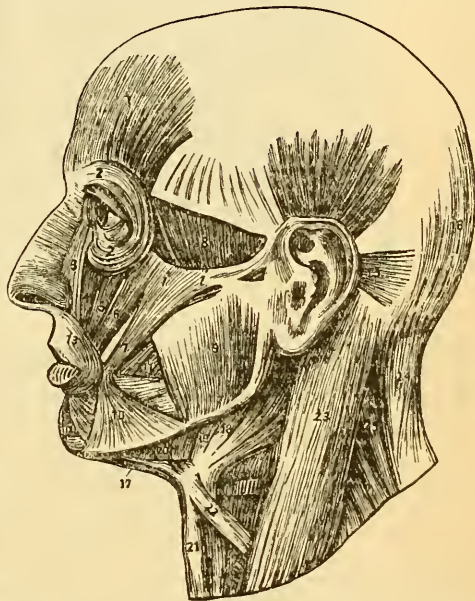
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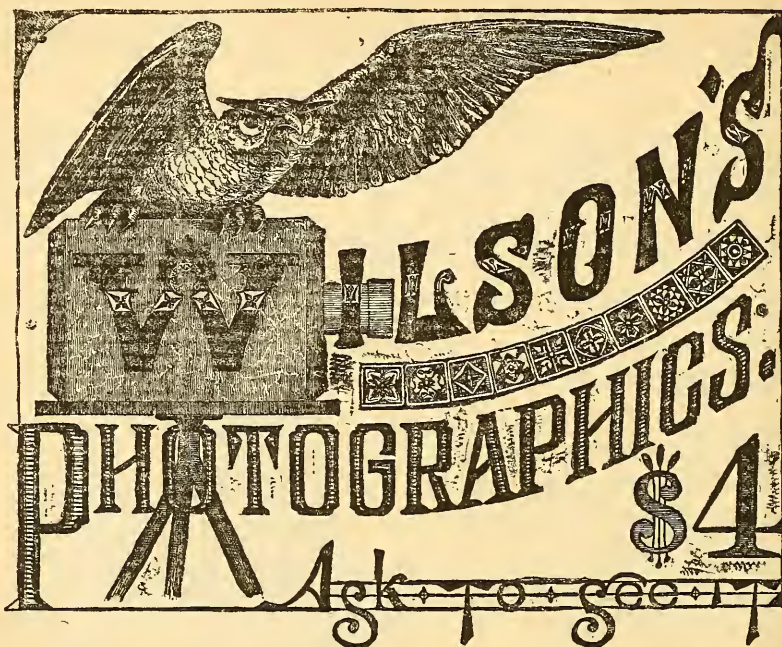
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that the BULLETIN has proved a success during the past year, our long list of unsolicited testimonials bears ample witness. And we have found it utterly impossible to publish all the good things that have been said of us, owing to the wealth of material always at hand to fill our pages. What is yet more encouraging to us is the large increase in our subscription lists, on which the number of names is now almost double what it was one year ago, and is increasing with every issue of the journal.

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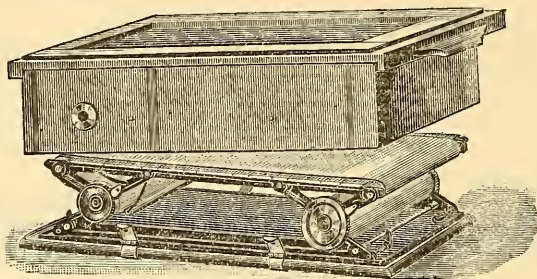
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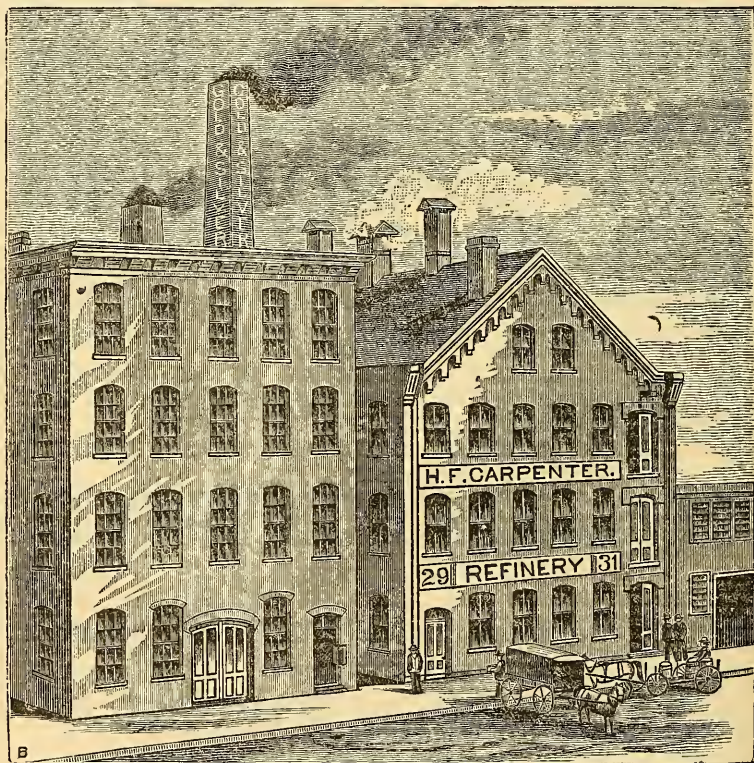
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
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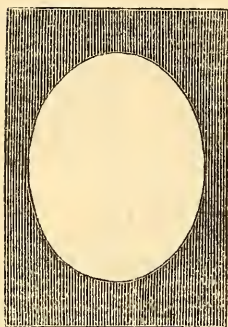
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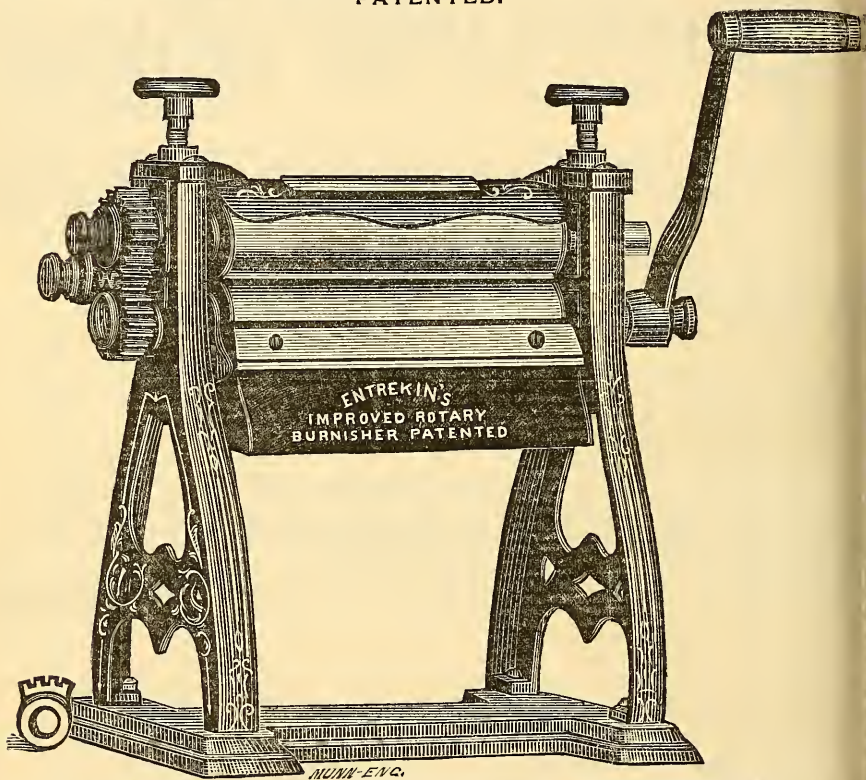
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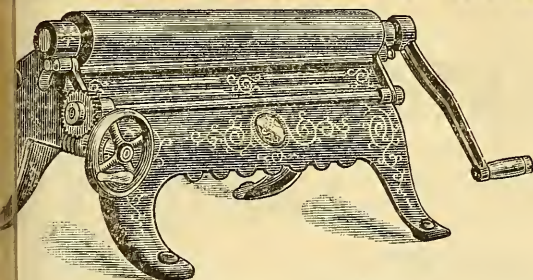
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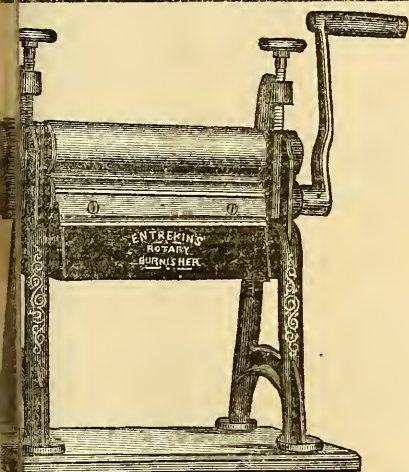
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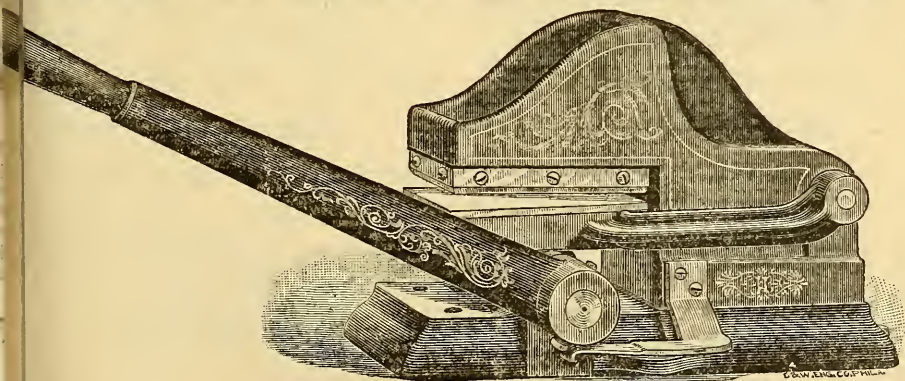
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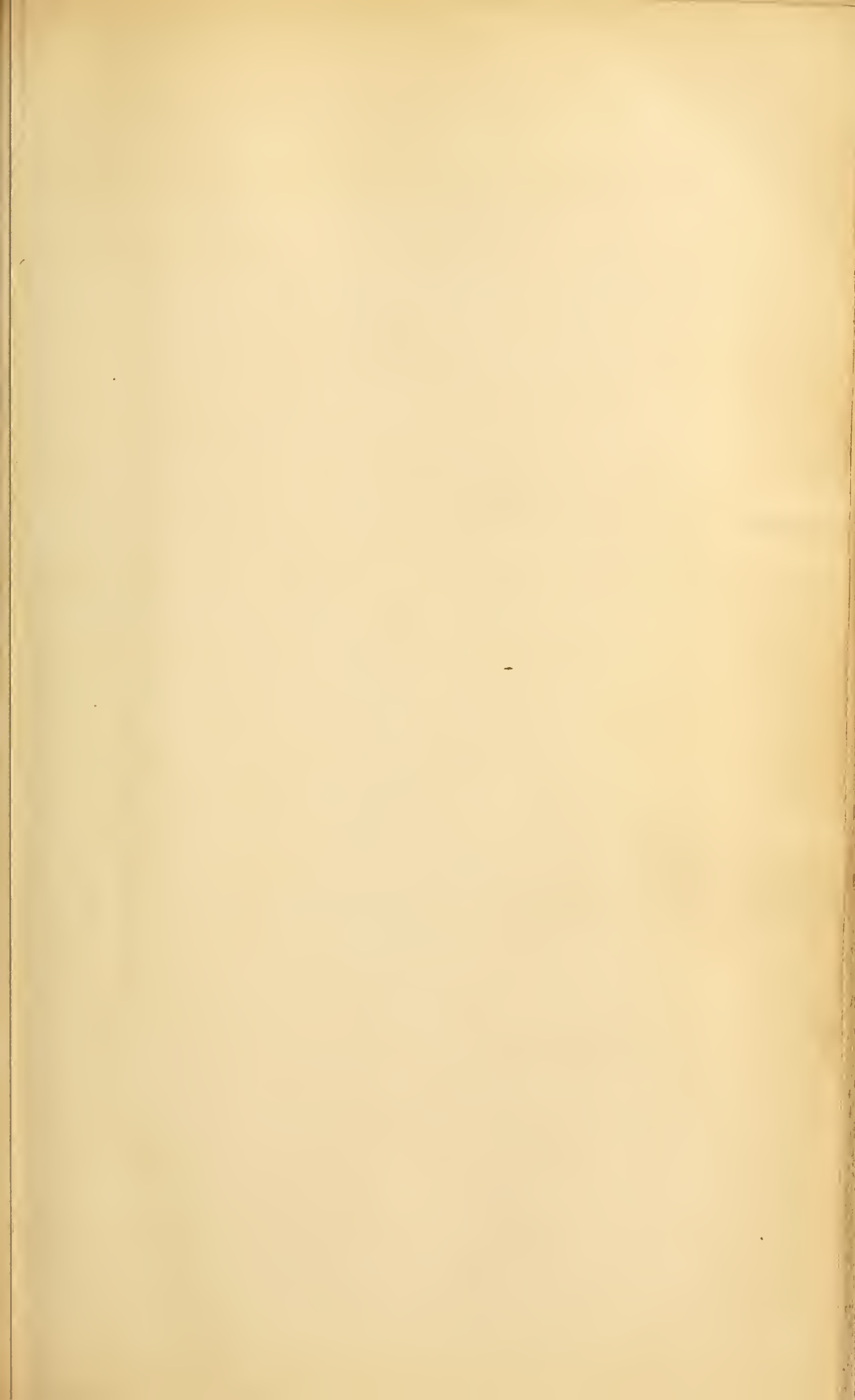
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Vol. XXIII.

APRIL 3, 1886.

No. 271.

ART AND PHOTOGRAPHY.

BY G. HANMER CROUGHTON.

(Continued from page 58)

LINEAR COMPOSITION.

ADHERING to the plan laid down in my introductory chapter, of making these papers as simple as possible, so that photographers who have no knowledge of art may be able to understand as they read, I commence with what may be termed the alphabet.

Composition is a term applied to the dispositions of the lines, the massing of the lights and shadows, and the management of the colors in a picture. The first two will need the attention of the photographer. With the composition or harmonies of colors he has nothing to do, but if his compositions of lines or light and shade are defective his photographs cannot be artistic.

The linear composition of a picture (photographic or others) is of even more importance than the composition of light and shade; bad lines can be sometimes hidden by a judicious arrangement of shadow, but that should only be resorted to when, from the nature of the subject or other causes not under the control of the operator, it is impossible to dispose the lines so as to get good composition. First get your linear composition as good as possible, and then use your light and shade to aid and perfect.

There are a large number of rules and technical terms made use of in books on

art, with which I do not think it at all necessary to bother the photographic reader. There are some which it is absolutely necessary to observe, but before entering upon practical demonstration of those rules I will say that all rules of art are capable of wide application. They are hard and fast rules, like the laws of the Medes and Persians, which are unalterable. But first, the student must be thoroughly acquainted with those rules and their application before he can venture to depart from them.

For instance, there is no doubt that the pyramidal form of composition is best and most pleasing to the eye, that is, where the lines of the picture or portrait fall into the form of a pyramid, the point of it being at the top. But it is not at all necessary that the lines of your composition should be kept within that pyramid; on the contrary, it is much better and more pleasing to the eye when the lines of the composition break the pyramidal lines, and fall both outside and within the lines of the pyramid.

Let us, for instance, go into the skylight and pose a male sitter in an arm-chair, full to the front; let him look straight before him and rest his hands upon the arms on each side of the chair. Take a three-quarters figure of him in this position, and you have the pyramidal form, but it is neither graceful nor artistic. And yet it could be argued that this picture fulfils the requirements of certain rules laid down in

certain books upon art—first, it is pyramidal in form; next, there are no right-angles, and the line of the left arm repeats the line of the right arm, and so gives balance and support to the composition, and yet it is so unsatisfactory that the youngest beginner would not make a portrait in such a position. I just quote this instance to show that not only are the rules of art capable of wide application, but that to a certain extent those rules may be observed, and yet the result be anything but satisfactory. But to proceed.

Straight lines are to be avoided, curved lines being most graceful; lines crossing at

right-angles formed by arms and table or pedestal.

While speaking of the long graceful lines of a lady's party or ball dress, I must enter an energetic protest against the practice which now prevails of winding the train around the feet of the model, till you wonder how in the world she will ever get out. The arrangement of a train skirt in this manner is too apparent. No lady, unless she had gone through the old blind-man's-buff formula of turning round three times to catch whom she may, could possibly get into such a position unaided, and a person looking at such a picture feels that the pho-

FIG. 1.



FIG. 2.



right-angles or lines forming angles are abominations. I have seen numbers of otherwise fine pictures spoiled by a neglect of this rule. It is astonishing that the operator who has spent so much time in arranging the long flowing curves of a lady's draperies, should ruin all by getting the arms into such a position as to make one, and I have seen in some pictures, two

tographer must come and unwind her before she can move from the background and accessories. No matter how well arranged the composition may be, nor how graceful the lines, unless they appear as if they had fallen into place of themselves by the natural movement of the model, they will be both incongruous and inartistic.

Repetition, or lines flowing in one direc-

tion is to be avoided. Although a certain amount of harmony in the lines is necessary to balance the composition, anything like repeating the exact lines on the left of the picture because there are lines of the same description on the right, is to be avoided.

I give here two rough pen and ink drawings with which I will illustrate the rules here laid down. The pyramidal form of composition can be studied from any engraving of portraits or other pictures, and in tracing the pyramid you will find that wherever the lines follow too closely the pyramid, the composition is stiff and unpleasing; that is the best art and most pleasing where the composition, while being pyramidal in form, does not obtrude the pyramid upon the beholder.

Fig. 1 shows with the right arm a bad case of angle. The figure is stiff because the left foot being shown the weight of the body is thrown upon the right foot, and so is inclined slightly backward.

In Fig. 2 a slight alteration of the arm has broken the angle, while a slighter inclination forward gives a graceful position to the figure. The two arms being extended with the fan between, give enough repetition to balance the lines of the upper part of the composition. The chair with the opera cloak upon it, being removed to the other side of the figure balances the lines of the skirt without repetition, and completes the pyramidal form of the picture.

These rules apply to the use of backgrounds and accessories in the skylight as well as to the figure. In buying a background avoid straight lines and angles, or any other form of a decided nature which may contend with the lines of the figure. There are times when a straight line of a panel or other small pattern upon the background, may be used as a foil to enhance the beauty of the graceful lines of a lady's drapery, but, as a rule, straight lines upon a background are too apt to cause angles in the wrong place, or to cut across the figure where the least wanted. A straight balustrade presents the same objection. Chairs, tables, desks, whatnots, etc., while being very useful in making out the pyramidal form of composition, must be carefully arranged to avoid opposing lines and angles.

The old portrait painters have been very badly snubbed and ridiculed for the use of drapery in their compositions, but they were right, for they could and did follow out the lines and balance in their compositions with drapery better than with any other accessory.

In my next we will go into the skylight and take a lesson in the arrangement of light and shade.

PAPER NEGATIVES.

BY W. B. GLINES.

HAVING heard many complaints of paper negatives curling, and being hard to handle in the printing frame, etc., I have concluded to give my way of managing them, as I am using them right along for all sizes from 5 x 7 up, with *fine success*, and am greatly in love with them, on account of their very many advantages over glass.

Develop as per directions (I carry the development a little further than with glass). When developed rinse in clean water, then fix in hypo and water, leave out the alum. When *thoroughly* fixed, which is shown by the negative being of a uniform color, looking through it, or simply showing the grain of paper with no opaque spots, wash and immerse in a saturated solution of alum for five minutes. Wash thoroughly and squeegee face down on a sheet of ebonite. When thoroughly dry it will peel off, giving a beautiful glossy face (I prefer using the alum solution *after* fixing, as it gives a clearer and *cleaner* negative than when mixed *with* the hypo). The negative will invariably curl *face in* on being lifted from the ebonite, and may be straightened by the scraping action of a ruler applied to the back. Lay the negative on a sheet of glass with a clear piece of paper between the negative and glass. Apply the ruler, the corner behind the ruler being lifted as the ruler is passed along. When straight, lay face down on a piece of smooth pine board (with a piece of clean paper on it), and tack the four corners with thumb tacks. Apply the "translucine" or oil, and hold over the oil-stove, keeping the negative in motion till it presents a uniform dark color all over. (The board keeps the negative from curling

as it *would* do if not tacked to the board when heat is applied). When cool repeat the operation. I repeat it because one is then *sure* it is transparent, and it takes but a moment to do it. When *cool* the second time, wipe off the surplus oil with a clean rag. They can be retouched from either side. If from face, I apply the retouching fluid with the ball of the finger same as with a glass negative. If from back no preparation is necessary, simply use a harder pencil.

I keep the negative in place in the printing frame by tacking the corners with small pieces of stick paper. For copies they are *immense*, as one can do four times the amount of retouching that can be done on glass—working out backgrounds, etc. In storing away for future use I oil a piece of paper in the same way I oil the negatives. Place it between two negatives (back to

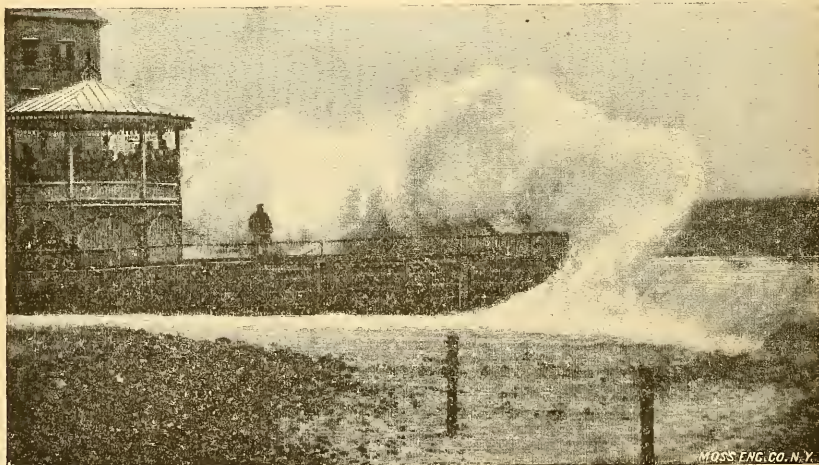
On the back of the mounting card we find written as follows:

"The great easterly storm at Crescent Beach, Mass., spending its fury against the Hotel Rue de l'Eau. Taken, whilst snowing and blowing violently, with a Darlot Rapid Hemispherical Lens, No. 2."

The size of the views is 5 x 8 inches.

Mr. Eliezer Edwards, in commenting upon "Waves mountain high," in his excellent collection of *Words, Facts and Phrases*, says that "waves do not rise more than twelve feet above the calm water."

This may be true, when there is any "calm water" around. But, as many of us know, when an 1886 blizzard befalls us "calm water" becomes a departed commodity. This time, we have even truthful photography to prove it, thanks to the won-



back). This keeps the negatives saturated a long time, not allowing them to dry out. It is easier to oil the separating paper, than it is to have to *reoil* two negatives. For all sizes from 5 x 7 up, they are *grand*. For enlarging with bromide paper they require about three times as long an exposure.

QUICKER THAN THE WIND.

MESSRS. BENJAMIN FRENCH & Co., Boston, have made us the recipient of two very remarkable marine views, which are worthy of more than a passing notice.

drous power of the Darlot Rapid Hemispherical, which, quicker than the wind, has caught the ambitious breaker in its very attempt at hotel annihilation, its whole length, and to its very crest. An angry sea-monster it is, indeed, boiling with rage yet too slow in its movements to escape the vigilance of the Darlot objective.

Thanks to the Moss Engraving Co., we are enabled to give our readers a more satisfactory picture of this wonderful lens accomplishment than our pen can impart, by means of an example by the new Moss process of engraving.

It is an admirable reproduction of the original.

Thanks, too, to Messrs. Benjamin French & Co. for their enterprise in bringing to the service of photographers lenses that will defy the wind, outreach the whirlwind, and do their work even amid darkness and storm. They embrace an angle of 60° to 75° ; are, as is demonstrated, quick-acting, perfectly rectilinear, and for rapidity are, it is claimed, "surpassed only by the Euryscope." They are excellent for all gallery work and for copying.

They place a tremendous power in the hands of those who, during the coming view-season will seek for instantaneous marine and other subjects which must be taken quicker than the wind.

DEVELOPER FOR RAPID EXPOSURES—WHICH?

AFTER the President of the Society of amateur photographers of New York had concluded his demonstrations and paper given on page 155 of our last issue, he said:

"The next subject on the programme is a matter which is brought forward by the Question Box Committee, and as our Secretary is absent, I will read what is stated here. Dr. Janeway, who is Chairman of the Question Box Committee, I am sorry to say, is unable to be present to-night, owing to the death of General Hancock, and requests that this paper be put before the Society. Following this paper there will be a discussion on the subject to which it relates.

The question proposed is:

What is the best developer for rapid exposures? Shall I use a strong or weak one, or one of one or two solutions?

The Committee on the Question Box take great pleasure in presenting the above, from an anonymous questioner, to the Society for discussion, evincing as it does something more than mere curiosity—a search after facts rather than a desire to reinforce a preconceived opinion either of the questioner or some one whom he has been asked to pin his faith upon. The question itself, taken either as a whole or in some one of its natural subdivisions, is and has been engaging the at-

tention of many of the first photographers of the world for but a comparatively short period. The rapid strides that have taken place in the manufacture of extremely sensitive dry plates, and the consequent necessity of very much shorter exposures, stimulating the inventive genius for some mechanical apparatus to produce this end, compels us to look this question fairly in the face and settle upon, to the satisfaction of ourselves at least, what is the best developer, or the best way of handling the chemicals at our disposal for development.

Up to within a comparatively short period, the general belief of the photographer was that the quicker the exposure the stronger must be the developer used, and in the hands of the veteran, beautiful negatives were and are produced, because his experience taught him what to expect and how to realize his anticipations. But we fear that many a tyro amateur, with his quick shutter or detective camera, failed to have his hopes end in fruition, and saw more than the first dozen of his very rapid plates ruined—either fogged by development, or so weak and thin that all the intensifiers that he ever read about would not bring them up to the desired density or detail. It was doubtless in a great measure due to these failures, and consequent heartaches, that the second part of the question, "strong or weak?" made its appearance, and many amateurs plunged boldly into a series of experiments to solve the vexed question (especially vexatious to many) to their own satisfaction, even if they failed to convince others. As the subject stands now, it is not settled, but each side has its own band of earnest advocates.

Mr. C. Faber says, in a communication to the Belgian Photographers' Association, that this question has been often put to him, and that for the last three years he has found nothing that can be compared to the concentrated developer of Dr. Eder:

Neutral oxalate of potash . . .	60 grammes.
Sulphate of iron . . .	20 "
Water . . .	100 "

Neutral oxalate of potash is dissolved in boiling-water, and this solution is kept at a temperature between 194° F. and 203° F.,

while sulphate of iron is dissolved in it. It is then set aside for twenty-four hours, and the clear liquid decanted off the crystals that have formed at the bottom of the bottle, and is ready for use. He says that it is the most energetic developer for gelatino-bromide plates. In the next sentence he says: "If the action of this developer is found to be too rapid, it suffices to dilute it with more or less water. By adding an equal volume of water, we obtain a bath which acts still more rapidly than the developer made by the usual formula.

That the advocates for a weak developer are numerous, can certainly be seen in the current photographic literature of the day, and certainly many beautiful results of their work are proudly exhibited to be admired, as they deserve to be. Quite recently, the advantage of using two solutions, instead of a combined one, has been strongly advocated by many earnest workers and experimentalists, who claim for this method a greater control of the process of development, and a certainty of results not to be obtained by any other.

A sort of cross, or half way, between the one and two solutions, has also been proposed. That is, by giving the plate a bath of water and then placing it into a combined solution. Mr. Eugene Albert, in a plea for over-timing, says that when he cannot over-time, or, in other words, when he makes a rapid exposure, that after letting the plate lay in plain water for ten minutes, covering it up, of course (a decidedly necessary procedure), he then washes it by pouring water over it, and then puts it into the combined developer. He further says that it is strange, but it is a fact, that the washing, after removing the plate from the plain water, facilitates the development.

Before submitting this question to the Society for discussion, and which your Committee hopes will be a free and full one, they would state that the question of temperature of the developer is engaging the attention of our brethren in Chicago, arising from a statement made by Mr. W. D. Payne, of the Acme Dry Plate, regarding the effect of increasing the temperature of the developer to a constant one of between 70° F. and 80° F.

Dr. John Nicol, of the *Photographic Beacon*, says that from several experiments he has made, he has no doubt that the benefit derived from the employment of the warm developer is not confined to the shortening of the time occupied for development, but that it also extends to the ability of making an equally good negative with a much shorter exposure than if the developer used had been cold.

JOHN H. JANEWAY,

Chairman Question Box Committee.

A CONTRIBUTION TOWARD PRECISION IN CALCULATION OF EXPOSURES.*

A RECENT writer says: "The time of exposure must often be guessed at in the vaguest manner," and again, "then in our uncertainty about strength of light and stops."

If this view of the subject be general, it is not surprising that the guessing should be so often wide of the mark. Although I will not assert that absolute precision is attainable until we have a perfect actinometer (which we shall soon have), I will say that with care and calculation a degree of accuracy and certainty is possible of which many have not dreamt.

The most important conditions are six in number, viz., Diaphragm, Light, Time of Day, Time of Year, Plate, Subject.

Diaphragm: The rapidity of a lens is governed by its aperture and focus. As the intensity of the light from any lamp or window is four times as great at one foot as it is at two feet, so the intensity or brilliancy of an image on the focussing screen is four times as great at six inches as it is at twelve inches from the lens, the aperture of the lens being the same. And as the area of a circle of two inches diameter is four times that of one, one inch in diameter, so a lens of six inch focus and one inch aperture will have the same intensity, and consequently require the same exposure as a lens of twelve inch focus and two inch aperture. It is

* Read before the Philadelphia Amateur Photographic Club.

simply a question of the relation the aperture bears to the focus and is easily determined with the utmost exactitude. But if any one thinks that two and two make five, let him think so and go on guessing. If the actinic value of light could be as easily determined as the diaphragm, there would then be only one important condition left for the exercise of judgment, viz., the subject.

But since we have, as yet, no instrument from which we can read at a glance the actinic value of light, we shall have to get at it in a somewhat roundabout way, by estimating the apparent brightness of the light, and then at its photographic value by a consideration of the time of day and time of year. Until we have the perfect actinometer, which shall give us the measurement of light in degrees as a thermometer measures temperature, it will be convenient to describe the light on the subject as: very bright (sun or cloud), bright (sun or cloud), bright haze, overcast, dull, and very dull. Now let each of these conditions of light be measured by an ordinary actinometer (which every one had best do for himself) and their relative values noted for future reference.

Time of day: You are aware that within two hours of sunrise and sunset the photographic value of light is often very different from its apparent brightness, that, in fact, the light is very yellow near sunrise and sunset. A very good clew may be obtained by a consideration of the time of day. Some use a table showing the allowance to be made for each hour of the day and for every month in the year. This answers very well, but it is a little complicated. A simpler and more scientific method is to measure the altitude of the sun. This can be done with sufficient accuracy with a common tape-measure held at arm's length. Then measure with a common actinometer the actinism of the sun and diffused light at various altitudes from the horizon. Taking bright midday sun as one, we will find the sun at twenty-eight degrees above the horizon is relatively $1\frac{1}{2}$ at seventeen degrees, 2 at thirteen degrees, 4 at ten degrees, 6 at seven degrees, 12 and so on. This will give value for both time of day and time of year at once, but the sun may be obscured by cloud,

or the horizon may not be visible. Another method which suggests itself and which works well in practice, is to make a table showing the hour of sunset for each month in the year, and another showing the relative light value at, say, two hours from sunrise and sunset, ninety minutes, sixty minutes, forty-five minutes, thirty minutes, fifteen minutes, and ten minutes, as compared with midday in midsummer. The rapidity of plates must be measured either by the plate maker or operator with a sensitometer.

The subject will give plenty of scope for the exercise of judgment. Subjects should be classified, and experiences (both successes and failures) will, if noted, give valuable data to assist the judgment.

We have decided on the view to be photographed, the exact spot which will give us the best foreground, planted the camera, selected the lens which will give the desired angle of view we wish focussed, decided on the stop to be used, inserted the plate-holder; but before we draw the slide let us calculate the exposure carefully on scientific lines and thus save any quantity of plates spoiled by incorrect timing and oceans of time consumed in timid development.

As a basis for all our calculations, we will suppose that we have ascertained that the correct exposure is one second for a normal subject, which will be a landscape with light foliage in the foreground, with a plate sensitometer number 20 and diaphragm value f 22 full sunlight. This is the standard to calculate from.

Example.—Subject, open view with heavy masses of foliage in foreground—double the standard or two seconds.

Stop, f 30—double the standard, 4 seconds.

Plate, sensitometer number 16—four times standard, 16 seconds.

Time of day, 3 P. M., October—four times standard, 32 seconds.

Light, full sun with patches white cloud; no allowance; correct exposure 32 seconds.

Example 2.—Subject, sea and sky— $\frac{1}{2}$ standard, $\frac{1}{2}$ second.

Stop, f 16— $\frac{1}{2}$ standard, $\frac{1}{10}$ second.

Plate, sensitometer 24— $\frac{1}{4}$ standard, $\frac{1}{40}$ second.

Time of day, 2 P. M., April—normal.

Light, light sunshine, hazy sky— $\frac{1}{2}$ standard, $\frac{1}{20}$ second correct exposure. $\frac{1}{20}$ second.

Where the angle of lighting is unusual or extreme, allowance has to be made; for instance, if the lighting is very much from the side, the exposure should be the same as for diffused light, as the golden rule is to expose for the shadows and let the lights take care of themselves; this rule has exceptions of course, but where the shadows are broad they must have plenty of detail always.

It will frequently be found at midsummer, especially in photographing perpendicular objects in sunshine, that less exposure is required an hour or two before and after midday than at midday; not because the sun is more powerful, but because the angle of reflection is more favorable. It is generally necessary to give more exposure with sunshine and a clear blue sky than with the sun shining between patches of white sky, as the shadows are then better illuminated and contrasts less violent.

CONSTITUTION OF SOLAR SPOTS.

PHOTOGRAPHY AS AN INSTRUMENT OF
DISCOVERY IN ASTRONOMY.*

BY M. J. JANSSEN.

I HAVE the honor to present to the Academy the photographic image of the great spot which was visible on the sun, June 22, 1885.

This spot which measures nearly 2' for the principal nucleus, is one of the largest that have been observed; but for us the principal interest of this photograph consists in a mode of structure which it reveals with great clearness.

We know that the luminous region which surrounds the penumbra of the spots appears, in our glasses, as a collection of more brilliant matter. The photograph that we place before the eyes of the Academy gives an important analysis of the phenomenon, and shows that these collections have a constitution the same as the photosphere in general, and, like it, are formed by granular elements, of which the sphere appears to

be the normal form. The sensible increase of brightness presented by the masses surrounding the penumbra, photography explains by showing that in these regions the granular elements are nearer together, possess more brilliancy, and that the depth beyond is more luminous. But the indications given by our photographic image do not stop here, for we see that the striæ of the penumbra are of themselves formed by a granulation arranged like beads on a string, but while on the edges of the penumbra the granulation is very brilliant and very close, in the penumbra itself this granulation is less luminous, less frequent, leaving obscure voids between the strings of beads. It may be remarked, also, that the beads become less luminous and smaller in general toward the nucleus in which they appear to dissolve. The spot in question presents two very remarkable *bridges*, and an isolated and very brilliant mass of matter uniting them. Now, photography shows us that this mass and the bridges are formed of granular elements similar to all the rest. We already possess several photographs, the last, and most perfect of which reveal similar facts concerning the striæ, the penumbra, and their edges. It is highly probable, therefore, that these facts have a great character of generality. Nevertheless, I am not willing to assert anything in this connection before more numerous observations shall have given the demonstration of the fact. The sun has been studied since so long a time, and by such skilful observers, that these facts must have been imperfectly observed when very favorable atmospheric circumstances lent their aid, but photography alone could reveal them with certainty. It is very important to know that the luminous matter forming the solar surface has everywhere the same constitution. With regard to the solar mechanism, many consequences may be deduced from this, but for the moment I wish only to call the attention of the Academy to the photographic fact, so important in my eyes, which reveals to us these phenomena.

In fact, we remark that the image seen on the photographic plate was formed by the violet rays of the region G. These rays impression merely the retina. In astronomical

* Presented to the Paris Academy of Sciences.

glasses which are achromatized for rays much less refrangible, the image of the violet rays is not only very little visible but it is also far from being sharp. We see, therefore, that the photographic image of the phenomena to which we have referred above, would be almost impossible by telescopes, and, as to the delicate details of structure in which all the interest in these phenomena consists, they would be absolutely invisible.

Here is a fact of the greatest importance, since it shows that celestial objects which, by reason of the nature of their very refrangible radiation would escape our investigation by glasses, may be revealed by photography. Our solar photographs offer us numerous examples of the fact I have here stated, and it was by them that my attention was first called to this point, but I had afterward occasion to verify it by means of stellar photographs. Thus, for example, in 1881 and 1882, a photograph of the constellation Orion, notably, showed me that stars, hardly visible in my telescope of 0m,50 opening, came out very sharp on the photographic plate, for the reason that the radiancy of these stars was much richer in photographic rays than in ocular rays.

In a paper presented to the Academy on December 31, 1877, in the notice inserted in the *Annuaire du Bureau des Longitudes* for 1879, and in the opening addresses of the Congress of the French Association for the Advancement of the Sciences, held at La Rochelle in 1882, I said that photography offered not only, as is generally believed, the manner of fixing luminous images, but that it constituted a method of discovery in sciences and especially in astronomy. I added that the sensitive film of the photographic plate, on account of this admirable property of giving us permanence of the images, of forming them with an ensemble of rays much more extended than those that affect our retina, and finally, of allowing the accumulation of the radiant action for a time unlimited, so to speak; that this sensitive film, I said, should be considered as the veritable retina of the scientist.

I finish, therefore, in expressing the wish that this beautiful photographic process may be practised more and more by those who

devote themselves to the process of physical astronomy; we have here so large a crop to gather that we cannot have too great a number of workers.

This branch offers them an opportunity for splendid work and important discoveries.*—*Paris Moniteur.*

AN INTERNATIONAL PHOTOGRAPHIC CONGRESS.

The following letter has been addressed by the committee to all the photographic societies of the two continents, as well as to the principal journals which are their organs:

BRUSSELS, January 15, 1886.

MR. PRESIDENT: At a private meeting of the members of the jury of our last International Exposition (1883), and of our Committee of Administration, the idea was conceived of organizing an International Congress of Photography.

Numerous considerations showed the advantages to be obtained in simplifying the points of comparison. Several distinguished members of the meeting expressed the wish that an agreement between the photographers of different countries should settle these points, and, this being done, photographic uniformity might easily be established, with the certainty that it would everywhere be accepted. The task was not an easy one. Not only was it necessary to examine the points to which it would be necessary to call the attention of the photographic world, but also whether the investigations should be directed to the most practical means of organizing the meetings of a congress.

The foreign members of the jury of the International Exhibition, with a courtesy which we deeply feel, claimed that the geographical situation of our country was eminently favorable to the bringing together of those devoted to photographic science, and requested our Association to invite the photographic world to a grand convention

* The fine result that the Messrs. Henry have just obtained in showing by photography the existence of a nebula in the Pleiades proves the correctness of these ideas, ideas which I had already adduced in 1877.

to lay the groundwork for a mutual understanding. These same foreign members expressed the wish to see the work opened under the auspices and with the assistance of the Belgian government.

Our Association could not do otherwise than give acquiescence to so flattering a mark of kindness and sympathy, and steps were immediately taken to obtain help from our government. The minister, in his solicitude for everything that pertains to science and art, immediately promised us diplomatic intervention. Our Administrative Committee instantly took the matter in hand, so desirous was it of recognizing the honor which devolved upon it, of organizing this congress. A special committee was appointed, the members of which taken from the different sections of our Association, were instructed to elaborate the preliminary work and to group together the questions likely to be discussed.

Divers circumstances, over which we had no control, have caused a regrettable delay in the accomplishment of this important mission.

To-day we come, Mr. President, to render you an account of the work, and recommend it to your kind examination.

In order to give to the resolutions of Congress the authority which results from a large majority, and in order not uselessly to multiply the number of its meetings, the Committee of Organization deems it preferable to elaborate from the start a joint project of work.

This consideration has suggested to us the idea of transferring the discussion of the questions to the societies themselves of the different countries. Thus, they would likely be examined almost all at the same time by the principal authorities of the photographic world.

The Belgian Association of Photography, to respond to the honor conferred upon it, would, from time to time, place on its records the results obtained, a copy of which would be sent to each society. The questions thus grouped by a special committee, and freed from everything of a useless character that a public discussion introduces, would form a compact nucleus which might be submitted at the proper time to a meet-

ing of the delegates of all the photographic societies—in a word, to the Congress itself. It seems to us that in this way we could arrive at practical results, and that the desired end would be surely obtained.

We have deemed it useful, Mr. President, to bring together the different questions raised at the meeting of the members of the jury and of the committee, in a very condensed form, which we send you, with the request to communicate them to your society, and publish them in the organ by which you are represented. These questions are susceptible of being amplified, and we have no doubt that the distinguished members of your association will take interest in completing them.

We indulge the hope that our proposition will receive a favorable reception, and have for result to simplify the oftentimes long and little useful discussions raised in conventions. Should this one come to a good end, it would simply be necessary to vote on propositions already adopted, or nearly so, and to fix the ulterior date.

Accept, Mr. President, the assurance of our very high consideration.

A. DE BLOCHOUSE,
President.

A. RUTAT,
Secretary.

QUESTIONS PROPOSED TO PHOTOGRAPHIC SOCIETIES IN VIEW OF A CONGRESS.

1. Uniformity in relation to light; photometry the most suitable light in respect to actinism.
2. Objectives. Uniformity for focal distance, opening, and thread of screw.
3. Uniformity in the expression of the proportions in photographic preparations.
4. Uniformity in the size of plates.
5. Uniformity in the names given to photographic processes.
6. Measures to propose to the different governments for passing through the customs the photographic preparations and plates affected by light.
7. Examination of the question of photographic instruction from the point of view of the uniformity of the programme for the delivery of international certificates of capacity.

PHOTO. FACTS AND FANCIES.

Baron Grow, Minister Plenipotentiary in Greece, is an enthusiastic amateur photographer. One day he took a picture of the Acropolis at Athens. On his return to Paris he had the idea to examine with a lens the details of the print, and to his great surprise he discovered on a stone the image of a lion devouring a serpent. This design evidently dates back to a very remote age.—"*Cámara Oscura*" of Florence.

COMPETITION FOR INSTANTANEOUS STOPS.

The programme of this competition created by an American professor, Mr. W. D. Holmes, offers the maker of the best stop a prize of 250 francs, but Mr. Holmes reserves for himself the use of the prize stop, and he takes good care to give the dimensions of his lens. Moreover, the prize will only be given after the stop recognized the best shall be adapted to the lens of Mr. Holmes.

In short, it is a personal affair, the result of which can receive no serious sanction.—*l'Amateur*.

WHEN we receive a batch of plates, it would not be a bad idea to examine one or two, taken at random in the same way we examine any other commodity. Do not buy a cat in a bag, or wait for the proof of the pudding by buying it. Let us sacrifice to the shrine of photography a couple of these delicate creatures.

There is, in reality, much to be gained by superficial examination. There are certain indications whereby to gauge the quality of the emulsion by merely looking at the coating of the films.

First, the film side should be perfectly even in the coating. You can easily detect thinness at the edge and a thickness at the centre of a badly covered plate. Moreover, there should be a tolerable freedom from pecks, pits, elevations, or wave marks. But do not be too fastidious, a few spots here and there will not hurt your negative the least.

If the surface presents an almost white appearance it is a sign that the bromide of silver emulsion is pure, and the plate a good one. If iodide of silver has been used, even the proportion of 1 per cent., the color

will approach a canary-yellow. If the plate be held up and looked through, there should be a uniformity in its thickness—that is, certain portions should not present the appearance of less density; this is best done by looking at the flame of a candle through the plate.

But here again do not be hypercritical, but remember that it is only plate glass, having a perfectly flat surface, which will give complete uniformity in density: the inequality of ordinary glass interfering with equality of thickness in the film, but the flame of the candle should never be visible through the plate.

If these superficial qualities are possessed by gelatine plates we may safely predict that the exposures taken upon them shall result in good negatives.

Very sensitive plates demand a much longer time for development than less sensitive ones, and hence the developer should be applied much weakened. Do not be miserly in the portion of time you give an exposed plate. Do not grudgingly accord it a minute, and no more, and treat it to a too strong developer, but wait patiently for its emergence from the mystic fluid for five minutes or more, and you will be rewarded with beauty in lights and shades.

WHEN you have purchased a quantity of plates, tested certain samples, and are assured of their good qualities, be cautious how you store them away; be sure that the place where they are kept be not subject to foul air or vapors from ammonia, tar, carbolic acid, etc., for the invading force of the air, carrying, as it does, a host of noxious little molecules, can easily penetrate the citadel of pasteboard with which your delicate films are fortified, and woe betide the dry plate exposed to their attack.

Let the place where your plates are stored be dry, well ventilated, and perfectly free from fumes of all kinds, good or bad smelling. Even the pleasant odor of pine, which sometimes exhales from our wooden shelves, may be ruinous to the stored-up plates.

It is a strange thing that there seems to be a repugnance to strengthening gelatine plates, the preference being for plates which give at once strong negatives. Now, I think

this a mistake; besides, local strengthening is often of the greatest artistic value. We are not always able to get the modelling to that degree demanded by the rules of art. Suppose, for instance, we have a negative of a lady in a white dress—an entire figure; suppose the negative be properly exposed, but a lack of picturesque effect be occasioned by the extreme whiteness of the dress, a greater concentration of the light upon the head not being practicable with the use of the screen. Now, how shall a picturesque effect be secured? Presupposing the negative has not been so intensely developed as to prevent any further strengthening, we shall proceed as follows:

After having thoroughly washed the negative, flow it over with a very dilute solution of bichloride of mercury from top to the waist, pour back the intensifier in the beaker and again flow it over the plate, this time further, about to the knees of the figure; pour back into the glass once more, and for the third time flow it over the negative, this time completely over the whole plate; now wash it thoroughly.

Finally treat the plate to the cyanide of silver solution by which it becomes darkened again, and wash well under the tap.

When the negative is dried, it presents a surprising beauty in light and shade.

The head and upper portion of the body to the waist stand out in beautifully modelled relief from the half shadow, and the whole effect is remarkably picturesque.

I may say in conclusion, that I have found Monckhoven's intensifier of mercury and cyanide of silver far superior to any other.—FR. MÜLLER MÜNCH, in *Deutsche Photo. Zeitung*.

IN CROWDED QUARTERS.

Probably the most extensive art collection in this country, and in many respects a very valuable one, is hid away in this city where no one ever sees it, and its very existence is unknown except to a few. The collection contains the best of all the etchings, lithographs, photographs, chromos, and photo-gravures that have been produced in this country in the past twenty years. Their number is countless. They are piled one above another, many of them never having

been taken out of the boxes in which they were expressed, and the pile is covered with dust and buried in neglect in some of the cramped and dingy rooms of the Capitol, where is stored some of the overflow of the Congressional Library. The collection belongs to the library where the works of art have come for copyright privileges. Many of them would be great acquisitions to any art gallery, and it is impossible to estimate their money value, each piece upon its own merits, not to mention their value as illustrative of the growth of the graphic art in this country. Hung upon the walls and held in portfolios, where they might be seen by the public, these pictures would form one of the most valuable collections, besides being one of the most interesting in the country. As it is, they go together with thousands of valuable books, thrown like rubbish in the national library waste basket. When the new library building is provided by Congress, these pictures will be taken out from under the dust, and given a place where they may be seen in some way. Thousands of books that belong to the national library are in as pitiable plight as are the pictures. Valuable works, many of which could hardly be replaced, are piled away like old broken furniture in a junk shop. The library looks like a junk shop or an auction room. The shelves, from the floor to the ceiling, have been filled so full that the books are oozing out, and the floor is piled with the overflow. What cannot find room on the floor is stowed away in nooks and corners in other parts of the building.—*Washington Star*.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

A PAPER PUZZLE.

An old hand writes thus: I have lately been bothered with spots on my prints, while printing, like those on the enclosed prints. Printed yesterday, and nearly half of my batch was defective by reason of these spots. Can you give me any reason for it and remedy for the same. A man can't be pure in spirit long and have such luck. Paper bath is made acid with nitric

acid, then alkaline with concentrated ammonia.

Bath is from 60 grains to 100 grains strong (use stronger for weak negatives). Silver paper two minutes and have bath slightly warm. Fume thirty minutes. Seems to be more spotted after fuming. Paper is *dry* when fumed. I have about made up my mind that the trouble arises from oiliness or the appearance of that, when I *blot* the paper. Sometimes I have noticed that the blotter did not take up as *evenly as it should* all the surplus solution on the printing paper. I have rubbed my paper before silvering and yet it will in a greater or less degree show. Is my silver bath too alkaline with ammonia (would think it would be more apt to cut through that greasy look that way) or will more acid lessen it, or could I avoid it by *longer silvering*? Use N. P. A. paper generally. I believe that if I could make the blot paper take up all the *wet* from the albumen paper it would be all right, that is if it would absorb it *immediately*.

I have tried to cover the ground sufficiently so that you can answer me understandingly. Possibly a dozen words from you can set me right, and if not too much trouble for you, would thank you very much so to do. M. N. C.

To get a practical answer we turned "an old hand" over to Mr. C. T. Fellows, Philadelphia, who answers as follows: From the appearance of the samples sent I would say that your paper is not sufficiently dry before fuming, or that your fuming box is damp; such spots rarely come from any other cause. But since you say you were careful about that we must look elsewhere. It is possible that your silver bath is clogged with albumen, in which case you had best boil it down: after which fill until it tests about fifty grains, then sun it well, first neutralizing with ammonia. The ammonia-nitrate bath is rarely used now, just as good results being obtained from simpler ones. In your place we would try, say, silver and water, required quantity and strength (about sixty grains), neutralizing with ammonia or *sal soda*, and see what the result would be. If it would free you of your trouble it would

be worth while. We are inclined to think that the fault is with damp paper, or albumen in bath, and so by making up an entirely new bath, and observing that the paper is well dried, and box also dried out, you will discover whether the fault is there or *not*. It does not seem as if it would be necessary to have the bath stronger than sixty grains. Try again."

CAN you spare space in your valuable PHOTOGRAPHER for the following question? If a negative is placed in a printing-frame, and a dry plate is put in contact and exposed to light, why should another negative be produced instead of a transparency? Will some one please explain? I claim that a negative is made same as other except that number two is reversed.

C. H. TOWNSEND.

WILLIMANTIC, CONN.

[Will our readers answer this, with notes of their experience?—ED. P. P.]

CAN any one tell us how to remove silver stains from dry plate negatives? We are sometimes troubled with yellow stains coming from moisture upon the paper while printing proofs, or a drop of water getting under the proof paper. Once more we appreciate Brother Charles T. Fellows at tempts to give us light on the printing bath formula, but, are too thick headed to understand what he means by the "*simple soda bath*," and "*certain conditions*." Please give us the formula for a "*simple soda bath*," and what are the "*certain conditions*."

W. C. TUTTLE.

MR. FELLOWS answers as follows: For the benefit of those who have been in the photographic business for a long time and do not know what a simple soda silver bath is, I dedicate the following explanation!

First, the two simplest forms of soda are sodium chloride (common salt), and sodium carbonate. In photographic parlance, in speaking of a simple soda as a neutralizing agent, we would mean the simplest form that could be so used, not a compound form. Everyone knows that salt is not a neutralizing agent. Hence, the next simplest would

be accepted as the agent, sodium carbonate (or sal soda). Hence, the term "simple soda bath." If any other form of soda was used, such as phosphate, bicarbonate, etc., it would have been so expressed, being out of common use. Certain conditions in the appearance of the paper, such as mottled effect, as if the paper were damp before fuming, or a general appearance of weakness; superficial lustre, as if it were on the surface merely, indicate the presence of albumen. Treat then in the usual manner. For fear that some of the fraternity might not know what the usual treatment of a bath in such a case might be, would say, boil it down, neutralize with carbonate of soda and *sun*, or take a strong solution of permanganate of potassium, color the bath red and sun. Filter after a good sunning, build up the strength and use as *usual*. *Think a little, if you know how.*

P. P. W. writes as follows:

Will you inform me through the PHILADELPHIA PHOTOGRAPHER of some chemical that will dissolve or etch gelatine? I am experimenting in the washout process, and if you will give me some information about the working of the process, or any of the details, shall feel indebted.

[Who will help him?—ED. P. P.]

WHAT IS THE BEST "DRY" INTENSIFIER?

Is there any intensifier for dry-plate negatives that will *not fade and weaken*?

I have tried several kinds, but find that, *in time*, my negatives grow weak and fade (some canary color and some bleach). It seems to me there is no method of strengthening dry plates that have the "lasting" qualities we used to get with silver and iron on wet plates.

Truly yours,

PAUL ROWELL.

To this, Mr. H. L. Roberts, who made the "South" in our last issue, answers as follows:

It has been my experience with intensifiers, that the one recommended with the Carbutt plate gives the best results. The formulæ are as follows:

Mercury Solution.

Bichloride of mercury . . .	60 grs.
Bromide of potass.	60 grs.
Water	6 ozs.

Cyanide of Silver Solution.

Pure cyanide of potass. . . .	60 grs.
Water	6 ozs.

Add 50 grains nitrate of silver dissolved in one ounce of water.

To intensify, a negative must first be thoroughly freed from hypo; then immerse in the mercury solution until bleached white; then, after well washing, flow over or immerse in the cyanide of silver solution. When the chloride of silver formed by the mercury is changed to brown throughout, wash well and dry. These are not new formulæ, but have proved satisfactory to me, and I can recommend them where the negative has been thoroughly freed from hypo—otherwise there will be a white deposit formed on the negative after intensifying.

"POOR BOY."

"Poor boy" indeed, but many suffer with chapped hands like you at this season of the year. Note the following:

It is said that glycerine in its pure state should not be used for chapped hands, as it absorbs moisture from the skin, thus leaving it dry and liable to crack. When moderately diluted with water, however, glycerine is an excellent application.

WILL you kindly give me references for making emulsion plates? H. K. T.

[*Wilson's Photographics* devotes a chapter to the subject, with copious illustrations of apparatus, etc.; and *Vogel's Progress in Photography* contains forty full pages on the same useful topic.—ED. P. P.]

PLEASE give me *your* formula for a toning bath. I am possessed of your *Photographics*, and take your photographic magazine, both of which are of the greatest help to me.

J. HANSEN.

[Well, then, we have no personal formula for toning which we have not made public. See page 203 of *Photographics* for our "favorite," and read what Mr. C. T. Fellows wrote lately: *follow* what you read unaltered by yourself, and you will go right.—ED. P. P.]

I SEND proof of negative that I fear is spoiled by putting paper on before the negative was dry. It had been drying half a day and one night, and looked dry; but I can think of no other solution, for I think the paper was dry. Is there any way of restoring the negative? I hate to lose it, for my little friend who sat for it is on her way to Washington Territory, so I can't sit her over. I have tried nothing, excepting to put it back in the washing tank for half a day or so, which experiment proved of no avail. Any help you can give me will be gladly received.

Respectfully,

ANNA M. BANK.

The print looks as though the varnish was not dry when the paper was put on, and the varnish has been pulled away in streaks. Will some of our old practitioners be-gallant enough to tell our fair coworker how to remove the varnish, and thus save the negative of her "little friend."

I AM having some trouble with my printing this winter, which I was not bothered with during the summer. The prints are all spotted. What is the trouble? I find by steaming the paper it worked better, but not as brilliant as it should. I would like to know how to make cabinets with very dark background, just head and shoulders.

ISAIAH S.

Will some of the readers of *Queries* give us *their* experience? We have given ours in *Photographics*, as to the first.

SINCE Time is not a person we can overtake when he is past, let us honor him with mirth and cheerfulness of heart while he is passing.—*Goethe*.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

CURIOUS PHOSPHORESCENCE OF A PHOTOGRAPHIC EMULSION.

Mr. W. K. Burton has made known a singular phenomenon of phosphorescence, observed whilst preparing a quantity of emulsion gelatine (he calls it "ammonio-nitrate emulsion" of good quality and very rapid). Wishing to coat some plates he

melted the emulsion in question in an earthen pot with thick sides, placed in a water bath contained in an iron vessel over a Bunsen gas burner. As soon as the substance commenced to melt the author stirred it with a glass rod, and immediately remarked that striæ of phosphorescent light followed the glass rod. But what is still more extraordinary, Mr. Burton asserts that these striæ of light showed themselves on the *outside* of the earthen vessel notwithstanding its great thickness, and by rubbing the interior of the vessel with the rod, striæ of light were observed corresponding with the exterior. The paper which had been coated afterwards with this same emulsion showed itself to be electric after drying, and gave forth flashes of light when torn in a dark place. Have we now in gelatine emulsion such as is used in photography a new electric agent? Let us wait until Mr. Burton's observation has been repeated.

ON THE PACKING OF DRY PLATES FOR A SEA VOYAGE.

Mr. Robert Stewart, of Melbourne, Australia, having read our observations upon the necessity of packing dry plates in thin sheets of metal, as indicated by a London photographer, writes to make known his experience with plates imported from Europe which had been packed in the ordinary way. He found that all those that had been imported in bulk, and coming from the best English and French makers, lost considerably in quality, and were hardly more rapid than the ordinary wet plate. The author of this communication is convinced that dampness is the cause of this deterioration. In his opinion it is absolutely necessary that gelatino-bromized plates which are to make long sea voyages, should be packed in such a way as to be protected from the action of water, as it is humidity alone that causes their deterioration.—DR. PHIPSON.

POISONING BY BICHROMATE OF POTASH.

Medical journals report that Dr. Waugh again calls attention to the toxic effects of bichromate of potash. The author mentions several cases in which a solution of bichromate was accidentally drunk, having been taken for beer in a partially lighted room,

and with fatal results. In one case an individual was saved by the use of an emetic composed of mustard and water administered five minutes after the poison had been taken.

THE METALLIC SULPHITES OF MESSRS.
BROAKE & CO.

At our last International Exhibition, MESSRS. Broake & Co., of London, exhibited a number of metallic sulphites pure and perfectly crystallized; among others we may name a sesquisulphite of sodium, a sulphite of chromium, a cuprous-cupric sulphite, sulphite of ammonium, sulphite of lithium, sulphite of uranium, and sulphite of nickel. Several of these compounds may find their use in photography.—Dr. PHIPSON.

PHOTOGRAPHS OF LIGHTNING.

The *Photographische Mittheilungen* recently gave a very curious reproduction of a flash of lightning from negatives by Dr. H. Kayser. Up to the present time flashes of lightning had been rendered by sinuous brilliant rays, and the facts so clearly reproduced by Dr. Kayser of several luminous lines parallel to each other on the entire length of the luminous spark had not been remarked. It is not yet possible to explain this fact which seems to indicate the existence of several simultaneous discharges, starting at nearly the same time from the same point in the heavens or of the earth. In any event we have here a new result of great interest, due to the superiority of investigations made with the aid of photography. It will be remembered that Mr. H. Butler, of Dakota, also secured similar photographs of lightning.

MONS. VIDAL, of the *Moniteur* writes: Our sympathetic and learned colleague, Dr. Barlinetto, Professor at the University at Padua, informs us of a truly interesting result obtained by the use of isochromatic plates. A painting, attributed, but without certainty, to Leonardo da Vinci, was reproduced on an isochromatic plate and it was possible to read thereon the signature of the master which was invisible to the eye on the original. This furnishes a very complete proof of the power of the visi-

bility of the photographic objective since it is thus possible to discover what the human eye cannot see. This fact is not new, but we should be thankful to Dr. Barlinetto for having given us a new proof of it.

At the Leeds Photographic Society, Mr. Ford Smith read a paper on "The Pleasures of Photography." He said: "Can there be anything more delightful than the anticipation of a holiday with a camera? The almost childish way we fondle it; how carefully we dust it out; our anxiety lest the summer's sun (our greatest friend) should find some weak place and spoil our plates. Did you ever chance to meet two or three of our brethren on a train, bent on such an expedition? If so, you must have noticed the concentrated essence of happiness on their faces.

"And where does the camera lead us? Not along the ordinary tourist track, not along the hard macadam road; but you are led away by this little tempter into beautiful places known only to the artist, the fisherman, and the photographer, where, far from the haunts of busy men, nature, with her silent beauty, the fragrant smell, the musical stream, the sweeps of sunshine, and the shadows of the stately trees, soothes our overwrought brains, and, for a brief period, the high pressure of the present time is taken off.

"We not only bring such scenes away with us in our slides, but they are indelibly impressed in our minds, and, years after, when looking over some of our pet negatives, what a host of recollections float back into our minds! How they bring back some beautiful scene, perhaps the rich tints of autumn, the balmy breeze, and the broad sunshine, the long, tiring walk across the moorland! How thirsty we were! But the camera shuns the public-house, and turns to the little thatched cottage hiding itself away among the trees, and modestly—for photographers are sometimes modest—we ask for a drink of water. Do you remember the pretty girl, with her roses and pearls and smiles, handing us a glass of—no, not water—but sweet, new milk, and how Mr. —, but never mind, the girl was pretty, and we came out to enjoy ourselves, not to tell tales."

THE printing of ordinary photographs is now done by machinery in a Glasgow gallery. The sensitive paper is in a continuous roll, passing from one drum to another through a dark box provided with a negative frame and two gas jets. The time of exposure having been determined, the machine is set to give each print so many seconds or minutes of illumination under the negative. After the machinery is set in operation its movements are automatic. The negative is raised from the paper strip and the latter moved along until a fresh part is under the negative, when the latter is brought down in close contact, while the two gas jets are turned up. When the fixed time of exposure has passed the gas is turned down, the negative lifted, the paper moves one space to the right and the operation is repeated. Two hundred cards or "cabinets" may be printed in an hour by one machine. The prints are afterward toned, washed, and fixed in the usual way. All of them having had exactly the same exposure in time and with a light of fixed power they are as nearly uniform as possible in depth of color, and in colouring are, of course, brought to any desired shade or tone. The machinery of the printing apparatus is run by clockwork.—*Phila. Ledger.*

QUERY.—What good would any machine do, unless an extra sensitive paper were supplied, and a stronger light than gaslight employed, if it were not for the Permanent Bromide Paper?

AN interesting breach of promise suit is in progress in Victoria, British Columbia. A dashing young man doing business in the Pacific city happened to get a photo. of a young lady living in Nova Scotia, and became so infatuated with the picture that he entered into correspondence with the "Bluenose" young lady. Each letter received only helped to weld two hearts together. They became engaged. The young Victorian, determining that several thousand miles should not any longer keep two loving hearts apart, sent for the "Bluenose" lady. The marriage was to take place immediately on her arrival at Victoria. She arrived, but the gallant Victorian's love went down to zero at first sight, and he de-

clared that the photo. was not a true representation of the original. He refused to allow the knot to be tied, and now the fair one from Nova Scotia has demanded \$5000 for damages done to her affections.—Query, how did he recognize her?

DERBY PHOTOGRAPHIC SOCIETY.—The annual *conversazione* in connection with the Derby Photographic Society was held recently in the St. James Hall, Derby, and was highly successful, the attendance being good, and the proceedings of a most social and entertaining character. During the evening Mr. Richard Keene made an eloquent address. Among other things he said:

"Now, then, let us see how we are to commence our work. First, I would impress on you *not* to purchase apparatus of a Cheap-John kind. A good workman requires good tools, and a good artist always uses the best materials he can get. Next consider what sized picture would satisfy your wishes, and do not buy too small a camera; you can take small pictures in a large camera, but you cannot take large pictures in a small camera—this is self-evident. I should say a half-plate ($6\frac{1}{2} \times 4\frac{1}{4}$) or a 7×5 is a convenient size; if you get one much larger, the weight is increased considerably, and becomes too heavy for carrying many miles, and there is no need to make a toil of a pleasure. Next, as to the lens: get one by a good maker (*two*, if you can afford them). This is of greater importance than a good camera. I say *two* lenses, because sometimes *one* lens will get in too much or show too little of the view you want to take from a certain standpoint. You may say, 'Shift your standpoint—go nearer to or further away from the object, and so get the required result;' but this cannot always be done, therefore, *two*, or even *three* lenses of different focal lengths are desirable."

At a recent meeting of the Birmingham Photographic Society, Mr. W. J. Harrison, F.G.S., gave a descriptive discourse upon "The Optical Lantern as applied to Education," during which over one hundred slides were exhibited on the screen by the aid of the magnificent lantern at

Mr. Harrison's disposal. The oxyhydrogen light was used, and the subjects treated were astronomy, physics, geology, physical geography, natural history, and some views of Welsh scenery. In treating of astronomy, the contrast between the appliances in use a century ago and at the present time was very effectively shown. Perhaps the best slide of the dozen on this subject was that of Saturn with its rings. Physics: The decomposition and recombination of light was explained, also Faraday's curves in magnetism, and an interesting slide of the breaking at sea of the first Atlantic cable. Geology: This subject was treated by Mr. Harrison in such a manner that could only be expected from the holder of the Darwin gold medal for geology.

Commencing with the earliest known fossils—the Trilobites—of which excellent illustrations were shown, we were carried in imagination to the primeval coal forest, and enchanted with photographic copies of most delicate fossil ferns, vieing with which we had the beautiful Foraminifera, found in the chalk. The Victoria Cavern, in Yorkshire, explored under the direction of the British Association, was fully explained and illustrated. Next was introduced to view some of our ancient animals—the mastodon and mammoth elephants and Irish elk, a fine specimen of the latter being in our Mason College. Illustrations of the Glacier period were then shown. The slides of Llanberis Pass, as it would appear in that period compared with its appearance to-day, were particularly interesting. In physical geography, we had the lake upon the banks of which Prof. Tyndal has built his residence; Vesuvius in eruption, a photograph from nature; Fingal's Cave, and two specimens of crystallization of water vapor which were remarkable for the beautiful outlines produced in so simple a manner at this season. The natural history slides consisted principally of transparencies by Mr. York, from instantaneous photographs of the animals at the Zoo. The slides of Welsh scenery were prepared by the carbon process, and showed how well it is adapted where fine warm tones suit the subject. Mr. Harrison also exhibited specimens of the method adopted by Mr. Dallinger in preparing slides at

short notice by drawing with pencil upon ground glass, and coating with Canada balsam. During the summer of this year Mr. Harrison was successful in securing an instantaneous photograph of the "Wild Irishman" express train, travelling at about sixty miles per hour. The 5x4 negative had already interested us, but the enlargement considerably increased that interest.

IN the absence of sunlight during the foggy days of winter, our journals of chemistry furnish us with a means of obtaining a new light, based on magnesium, which can be used either for photographic printing or for signals. One part of shellac, which is melted at a moderate temperature with six parts of nitrate of barytes in powder, is mixed with two and a half parts of magnesium in powder. This compound gives a white light. A red light may be obtained by substituting five parts of nitrate of strontium for the nitrate of barytes. The mixture may be obtained in the form of a thin ribbon of the width of the finger, or very thin tubes of zinc may be filled with it so as to obtain small magnesium torches. In the last case the tube burns at the same time as the powder with which it is filled, giving a greater photographic effect.

MR. E. WATERS has described the following process for obtaining albumen from the eggs of fish. The roe is well washed to rid it of the salt, the blood, and other impurities, then it is cut up into two or three pieces and allowed to digest for twenty-four hours in water containing from two to five per cent. of liquid ammonia. The liquid, passed through a cloth, is evaporated at a mild temperature so as not to coagulate the albumen. The albumen may also be precipitated by adding an acid; it is pressed and then dried. In the last case, says the author of the process, it is preferable to wet the precipitate thoroughly, before drying, with a solution of ammonia so as to gelatinize the exterior surface. In the last case, moreover, soda or caustic potash may be substituted for the ammonia.

PHOTOGRAPHY has been used to determine good wood for building purposes, and it is said that this application has already

given very satisfactory results. Sections are reproduced by means of microphotography from transverse and longitudinal samples of the wood chosen, when they are submitted to a maximum and a minimum pressure. These prints are then enlarged and are used to compare with the reproductions of other samples. It is asserted that we have here a very practical method to test the wood which is to have an important position in buildings. The quality is judged from the structure thus revealed, that is to say, from the number of rings and medullary rays in a square inch of the section examined.

A DISCOVERY which will much interest photographers, now that it is proposed to replace gelatino-bromide plates by negative paper, has just been published in the *London Journal of Society of Arts*. It is a process to render paper as tough and resistant as wood or leather. For a long time it has been known that the action of acids, especially sulphuric acid (which produces parchment paper when it is used with one-half its volume of water) and nitric acid, renders the paper very resistant, but perhaps these processes are not so good for negative paper as the new process mentioned above. This last consists in introducing chloride of zinc into the pulp whilst the paper is being made. The more the salt of zinc is concentrated the stronger its action on the product. Treated in this way the paper may be used to make boxes, combs, shoes, and even roofing-tiles. We do not yet know what action the bichloride of zinc may have on the emulsion of film, perhaps none whatever.

At the annual meeting of the London Photographic Society, Mr. Dresser read a short paper on an incandescent electric lamp for the dark-room, in the construction of which Mr. Schauschiff's pile for one liquid was used: zinc, carbon, and sulphate of mercury, of which eight elements give a light equivalent to seventy-eight candles.

At a meeting of the Photographic Association, Mr. A. L. Henderson called attention to a kind of commercial plate which has been introduced as a novelty. This plate is developed by means of ammonia,

bromide, and water only. It was inferred from this that pyrogallie acid, or some similar substance, must enter into the composition of the sensitized film. That is to say, that a certain quantity of it had been added to the emulsion. By treating a corner of the plate with nitrate of silver we obtain a spot which seems to show that the emulsion really contains pyrogallie acid. The practical results so far obtained with these plates do not seem to be very encouraging.

Mr. C. H. Balmain, of Edinburgh, showed some photo-lithographs which have the appearance of collotypes, and are so excellent that it is thought that this process must have made all at once a considerable step in advance. Some members even doubted that they were lithographs. No detail of the process was given.

MR. CH. DARKER showed, by means of the lantern, some wet collodion plates from gelatine negatives obtained in New York, by Mr. F. York; then gelatino-chloride plates, by Mr. Ch. White, of microscopic objects; finally, a series of transparent views on bromized collodion from gelatine negatives, by Mr. C. H. Cooke. Mr. A. Cowan also showed some bromized collodion plates, some of which had been developed by means of ferrous oxalate and citro-oxalate of iron, and the others with a solution thus made:

Pyrogallie acid	1 part.
Sulphate of soda	8 parts.
Crystallized carbonate of soda	30 "
Bromide of potassium . .	1 part.
Water	480 parts.

The exposure lasted fifteen seconds at twelve inches from the negative, and the development took seven minutes. These plates could not be distinguished from those developed with the ferrous oxalate.

At the Irish Photographic Society, Mr. Greenwood Pim read an article on the silver bromide paper of Mr. Eastman. The author, experimenting with this paper, found that it is much more rapid if we use the potash developer (Bauch's), instead of using ammonia. The difference is very marked and can be shown by cutting a negative in two, developing one of the

halves with potash, and the other with ammonia. The author also finds that this paper is very sensitive to the retarding action of the bromide of potassium.

A SO-CALLED International Photographic Exhibition has just been opened in Dundee, in Scotland, under the auspices of the photographic society of that city. There were about six hundred exhibitors, and about thirty medals were awarded. The first gold medal, for portraits, was given to Mr. J. Lafayette, and the gold medal for landscapes, to Mr. R. B. White. Many amateurs secured medals.

THE International Exposition of Photography, at Oporto, Portugal, opened March 18, 1886, and closes on the 30th of April.

AN interesting exhibition of the sciences and arts applied to industry is now being organized at Limoges, France. It will take place from May to July, 1886. In the third section, comprising ceramics, enamels, and cathedral illuminated glass, is included class four, which consists of auxiliaries to their manufacture (lithography, chromolithography, etchings, photography, and the transfer processes).

M. CARLOS RELVAS, the eminent amateur photographer, has just sent us a magnificent album containing more than fifty of his beautiful reproductions of the retrospective exhibition of ornamental art which took place at Lisbon, in 1882. This album is preceded by an explanatory text in Portuguese and French. It is an admirable collection for which our distinguished colleague deserves great honor.—*Moniteur*.

WE have before us a very beautiful photographure, made by M. Arents, from a negative taken at the observatory of Meudon. This print, which was presented by M. Janssen, Director of the Observatory, represents the steering balloon called "La France" in the ascension made September 3, 1885. In this balloon were Captain C. Renard, chief of the military balloon service; P. Renard, his assistant; and M. Duté-Poitevin, civil aeronaut of the establishment.—*Moniteur*.

M. PINARD, of Nantes, is now making experiments in submarine photography. There exists at the bottom of the sea a vast field yet untouched for photographic reproduction, and we wish him all success.

THE house of Brunner & Co., Swiss Autotype Society, has just published the prospectus of its grained plates for direct printing of negatives for transfer to stone or zinc, with half tones. This is a most interesting novelty, and we hope soon to be able to show a specimen obtained by it.—*Moniteur*.

WILLIAM HUME'S PHOTO-ELECTRIC LIGHT.

Quite recently, at the Edinburgh Photographic Society, Mr. Wm. Hume presented an incandescent electric light, to be used in photography. This lamp has three incandescent lights which may be separately used: one white, one ruby-red, and one yellow. One or the other of these lights is obtained at will by a simple action which changes the direction of the current. The glasses which give the yellow light and the red light are partially covered with a metal screen which protects the eyes of the operator and at the same time strongly reflects the light toward the object. The white light is uncovered, so as to light the laboratory thoroughly. The electric battery which feeds this new lamp consists of twelve elements of medium size, which, when once charged, maintain a current of sufficient strength to give light to the lamp for about three months, or even longer. The first cost of this lamp is doubtless greater than that of ordinary lamps, but when once established, its maintenance is said to be economical.

MR. JOHN THOMSON, member of the Royal Geographical Society of London, has been appointed Professor of Photography of the above Society.

THE NEW BILL UPON AUTHORS' RIGHTS.

The new bill upon the rights of authors which will soon be presented to Parliament is of the greatest importance. It is very practical in what pertains to England and her colonies, but difficulties will be encountered in regard to international rights. The

different clauses treat of *books, journals, paintings, engravings, music, photographs, sculpture*, in a very complete manner. The old law will be repealed to make way for a much improved one. At any rate, it appears that the rights of authors will exist during life, and for thirty years afterward.

ILLUSTRATION OF BOOKS BY MEANS OF PHOTOGRAPHY.

Mr. Trueman Wood, Secretary of the London Art Society, announces the near publication of his manual on *The Modern Processes used for the Illustration of Books*. Mr. Wood is known as a highly distinguished amateur photographer, so that it is evident his book will contain a succinct description of all the photographic processes devised of late for this object. In an economical point of view, as well as in that of execution, book illustrations by means of photography still leave much to desire. Let us hope that Mr. Wood's little volume will do much to better his state of things.

PHOTOGRAPHY has been turned to new uses in Paris in cases of alleged adulteration of pepper, farina, and other articles of commerce. Hitherto the evidence of experts who have examined such commodities with the microscope has been accepted as conclusive; but the new system introduced by the chemists of the municipal laboratory has changed the method of procedure. They now conduct their analyses of minute samples of commodities under a strong light, which permits the use of a photographic microscope. The photograph thus taken is sufficiently large to be easily inspected by the court, and thus the judges are able to verify the investigations, and also give to the prisoner the benefit of any mistake which may be discovered in the expert testimony.

Dr. S. C. PASSAVANT writes us that he has lately succeeded in manufacturing iodide plates which develop and fix as quickly as ordinary bromide plate. Any pyro-developer may be used, except with ammonia. They are quick—quicker than the eyes.

Mr. A. L. HENDERSON has been astounding his Society confrères in London lately

by some wonderful pictures taken on extremely sensitive plates, of the Photographic Society's Exhibition. They were taken by gaslight with a Suter lens, f. 16 stop, and with an exposure averaging two and one-half minutes. The portrait of the Secretary of the Society, with the picture-covered walls, were all admirably caught and well defined. What next for photography and the Suter?

Mr. L. W. SEAVEY continues to be the choice backgroundist in all continents. We sold fifteen backgrounds from our "Chestnuts" list, to a New Jersey photographer whose gallery was recently destroyed by fire," said Mr. Seavey, when we called at his studio this week.

SOCIETY GOSSIP.

NEW ENGLAND PHOTOGRAPHER'S ASSOCIATION.—The first regular meeting of the New England Photographers' Association, for the season of 1886-87, took place at the studio of J. W. Black & Co., 333 Washington St., Boston, Monday, March 1st, 8 P. M.

Officers for this year are:

President.—W. H. Partridge, Boston Highlands.

Vice-President.—Augustus Story, East Boston.

Treasurer.—George W. Whitney, Cambridgeport.

Secretary.—Arthur A. Glines, Newton.

Executive Committee.—A. F. Bussell, Quincy; E. J. Foss, Malden; D. T. Burrell, Brockton.

A large exhibition of photographs, by E. F. Ritz, of 58 Temple Place, Boston, was the feature of the evening.

The Stereo Camera, donated by Scovill Manufacturing Company, and Lenses for same, donated by Benjamin French & Co., were awarded to E. J. Foss, of Malden, Mass., for improved construction of skylights for photographers.

A very large easel loaned for exhibiting photographs, was purchased by subscription among those present, for use at future meetings of the Association.

Two new members were proposed by T. R. Burnham.

ARTHUR A. GLINES,
Secretary.

A *Special Meeting* was held at the same place, Monday, March 8th. Between 35 and 40 present.

President Partridge in the chair. The evening was spent in listening to remarks by Mr. David Cooper, of the Eastman Dry-plate Co., on the uses of permanent bromide paper and paper negatives; he also made two enlargements by artificial light in eight and three seconds, using a special stand constructed by his firm for the purpose. Also printed a wet proof from a wet gelatine negative by kerosene lamp, in five seconds, and it was in condition to show a customer and secure his order in a very few minutes.

Some fine prints were exhibited from C. F. Conly's Studio, also, by Mr. Inglis, of dry-plate fame, showing moving objects.

One new member was proposed by H. W. Whitney.

ARTHUR A. GLINES,
Secretary.

MINNEAPOLIS CLUB'S PRIZE DAY.—At the last regular meeting, Professor Shepard won the elegant gold badge for best picture by amateurs of the club.

As usual, on such occasions, there was considerable feeling displayed, poor judgment, and favoritism as one of the local stock—so much, as ruled out portraits as being interiors.

The rules were as follows:

Members to enter as many pictures of external subjects, taken during the month, at the regular monthly meeting, the entire work on plate and picture to be performed by the competitor. The best single picture to take the prize.

It would be well for the members hereafter to consult Webster as to what an exterior is, and remember portraits of persons are interiors. There was considerable feeling displayed, besides some harsh words and favoritism, that it would be well to abandon the next prize day. Mr. Hoffman offered a gold badge or medal for the best lantern slide, and we trust no such personalities will be used, or with more respect to other members and friends of the club.

Perhaps, hereafter, to define an exterior, it might be well to say it must be a tree,

river, etc., so no mistakes can occur, nor good portraits be ruled out. HYPO.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—A stated meeting of the Society was held on Wednesday evening, March 3, 1886, with the President, Mr. Frederic Graff, in the Chair.

We are obliged to condense the proceedings, owing to late arrival.

The Exhibition Committee presented their report, giving a full account of their labors in connection with the Exhibition.

The Committee called attention to a plan which had been talked of by some of the members: that an arrangement be proposed to the New York and Boston societies, that hereafter, instead of general exhibitions being held in all three of the cities each year, but *one*, in which all should take part, be held annually, the three societies having it in charge by turns, each one every third year.

The Secretary was directed to communicate with the New York and Boston societies on the subject.

The paper for the evening on the "Oxy-hydrogen Lantern" was read by Mr. Frank Bement.

Mr. Frederick E. Ives showed a new form of optical lantern devised by him.

Mr. Pancoast showed an album of views taken in India, which had been sent him recently by a friend.

Mr. Bartlett wished to know whether the increase in the detail in the dark portions of an undertimed plate is obtained through the action of the very diluted actinic light filtered through the ruby glass, as in the case of "preliminary exposure," or to the prolonged action of the developer itself? His uncertainty as to the cause followed some observations he had made of the accelerating action of light in calling forth the detail in the non-actinic colors, red and yellow.

Mr. Browne thought that the heat of the candle had much to do with it.

Mr. J. G. Bullock, referring to the discussion at the last meeting in regard to the permanence of prints on gelatine paper, read a letter from a maker of the paper, to whom he had written to inquire on what the claims of permanence were based.

The letter stated that a well-washed print on gelatine paper is practically the same as a well-washed negative, and equally permanent.

It was suggested that intensification was, in many cases, the cause of fading in both collodion and gelatine negatives.

In reply to a question as to the safest intensifier, cyanide of silver was recommended, and an experiment described in one of the recent journals was quoted in proof. An intensified negative was partly covered with several thicknesses of yellow paper and then exposed to the direct rays of the sun for the space of five months. On removal of the paper, not the slightest difference could be seen between the two portions of the negative.

Mr. S. M. Fox thought one cause of fading after intensification was the repeated use of the same mercury solution, which gradually became contaminated with hypo from the plates upon which it had been used.

After a recess for a lantern exhibition, the meeting adjourned.

ROBERT S. REDFIELD,

Secretary.

ASSOCIATION OF OPERATIVE PHOTOGRAPHERS, NEW YORK.—We receive the following with regret: It becomes my duty to inform you that at the last regular meeting of the "Association of Operative Photographers," held March 17, 1886, it was decided by the mutual and unanimous consent of all the members, that, on account of the lack of interest that was manifested in it, the Association should be dissolved.

Thanking you heartily for your courtesy in supplying the Association with your esteemed and valuable journal. I remain

Very respectfully yours,

W. EDDOWES,

Secretary.

775 BROADWAY, NEW YORK.

THE regular meeting of the Amateur Society of this city was held on March 9th. A large attendance and interesting discussions. Comments in our next.

PERTAINING TO THE



Rules to be observed by Exhibitors at the St. Louis Convention of Photographers' Association of America, June 21-25, inclusive, 1886.

All photographers who desire to exhibit or compete for the prizes offered by the Association will please notify the undersigned, and state the amount of space required, which should not exceed three hundred square feet wall space. When applying for space it should be stated whether pictures will be exhibited framed or unframed. All exhibits must be shipped, freight prepaid, and directed to Robert Benecke, Local Secretary of P. A. of A., Exposition Building, St. Louis, Mo.

The boxes containing the pictures should have the name of the exhibitor marked on the outside, and also on the inside of cover, to facilitate the reshipping. All exhibitors, except those from foreign countries, must attend to the hanging of their pictures, and all exhibits must positively be in place by ten o'clock A. M., Tuesday, June 22, 1886.

The resolution adopted by the Executive Committee that all pictures from foreign countries should become the property of this Association has been rescinded. The Association will bear the cost of transportation, and return the exhibits to their owners. Competitors for the prizes offered by the Association are requested to answer the following questions, and sign a certificate as below, which will be sent to any address on application:

QUESTIONS.

1. What lenses were used?
2. What make of plates?
3. What developer?

4. What paper?

5. Add any special information as to developing, intensifying, reducing, etc., that you may consider of value.

CERTIFICATE.

"—, the undersigned, certify, on honor, that each and every photograph entered by —," to compete for prizes offered by the P. A. of A., at the Convention to be held in St. Louis, Mo., in 1886, is printed from a negative or negatives made since the Convention of said Association held at Buffalo, N. Y., July 14-18, 1885.

(SIGNATURE.)

Very fraternally,
ROBERT BENECKE,
Local Secretary of P. A. of A.

EXPOSITION BUILDINGS, ST. LOUIS, MO.

PRACTICAL POINTS FROM THE STUDIOS.

A PAPER was recently read before one of the foreign chemical societies, in which the writer showed that filter paper, ordinarily so weak, can be rendered tough and at the same time pervious to liquids, by immersing it in nitric acid of relative density, 1.42, then washing it in water. The product is different from parchment paper made with sulphuric acid, and it can be washed and rubbed like a piece of linen.

A GOLD VARNISH FOR PICTURE FRAMES.

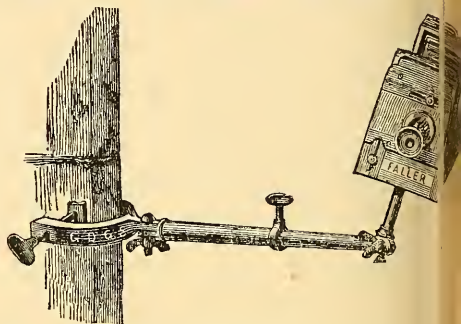
Use turmeric, gamboge, of each one drachm; spirits of turpentine, two pints; shellac, sandarach, of each five ounces; dragon's-blood, seven drachms, thin mastic varnish, eight ounces. Digest with occasional agitation for fourteen days in a warm place, then set aside to fine, and pour off the clear liquid. This is to be applied on the frames previously silvered.

"THE INDISPENSABLE." I find this device, made plain by the cuts, in a French paper. Please reproduce it for our mutual good.

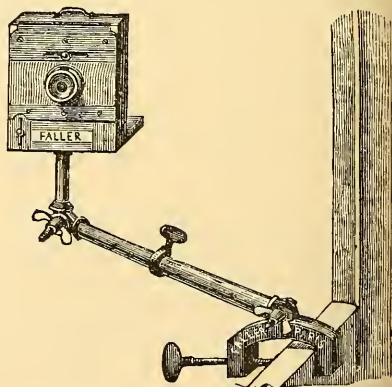
C. J. W.

This support, for cameras, which has a clamp joint, allows the apparatus to be placed in all possible positions, even in the reverse position, (ærostatic photography),

in fact, in all cases in which the use of the tourist's tripod is inconvenient and even impossible. The facility with which it can be solidly attached to the top of an ordinary ladder, allows the landscape photographer



who possesses this appliance, to do away with the annoyance and impediment of the tripod stand.



[We hope our manufacturing dealers will produce the "Indispensable" for our market.—ED. P. P.]

"THE last new thing in hats beats all that has gone before it," says the *St. James's Gazette*. "and it is scarcely likely to be equalled by anything that can follow after it. Herr Luders, of Görlitz, has patented "a photographic hat"—or, as we ought rather to say, a photographing hat. The novel head-dress contains in its upper part a small photographic apparatus and a number of prepared plates. In the front of the hat there is a small circular opening, behind which the lens is fixed. By means of a

string on the outside of the hat, its wearer, whenever he finds himself enjoying a pleasant view or attended by an agreeable person, can instantaneously photograph the landscape, the lady, or the gentleman unconsciously within range of his instrument. The hat will probably be in demand by two sorts of persons—by lovers and detectives. The former, by merely pulling a string, can set the image of his beloved not only in his heart, but in his hat. The gelatino-bromide plates in the specimen exhibited by Herr Luders are 38x38 millimetres in size; but, if one does not object to wearing a very large hat, the plates may be proportionately increased in size. The potentiality of the hat for police purposes hardly needs to be described."

A KIND WORD.

Correct, friend Wilson. I believe if those who receive THE PHILADELPHIA PHOTOGRAPHER, with the pictures broken, will appeal to their own Postmaster or carrier, in a kindly manner, they will not have any more complaint to make. You remember several months ago I wrote to you in regard to my receiving many of the magazines, with the pictures broken (which you so kindly replaced with good ones). You suggested that I bring the matter to the notice of my Postmaster. I did so (or, rather, to my carrier), by showing him the broken pictures, and kindly asking him to notice the condition they were received through the mail, and help me to find out where the trouble was. He promised to do so, and when the next Magazine came he handed it to me "as flat as a pancake," saying, "that is the way it comes!" I do not have any more broken pictures.

Respectfully yours,

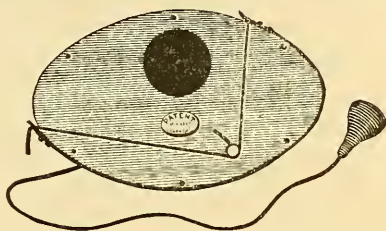
E. M. VAN AKEN.

ELMIRA, N. Y.

OBERNETTER has just used a new process for making a gelatine emulsion paper. This paper does not develop, but is prepared with chloride of silver, which blackens very rapidly when exposed to light. Printing is one as with albumenized paper, but naturally more rapidly; it requires from two to three minutes to make a print.—*La Revue Photographique*.

THE KLEIN STOP, WITH CENTRAL OPENING.

Mr. Engel Feitknecht, of Douanne, Switzerland, sends us a very ingenious stop, invented by Mr. Klein, the merit of which lies in its great simplicity, as well as in its perfect adaptation to the end to be obtained. The motion is given by an India-rubber



string, more or less distended, according to the duration of time required. The opening is made centrally, by an increasing and decreasing motion. The mounting of this stop is very light, and its volume does not exceed 19 x 12 centimetres ($7\frac{1}{2}$ x $4\frac{3}{4}$ inches). It is placed before the objective by means of three screws; a patch of black cloth attached to the socket of the objective prevents the introduction of any luminous rays except those which penetrate by the opening of the stop itself.—*Paris Moniteur*.

M. BECQUEREL has recently published a paper on the relation existing between the absorption of light and the emission of phosphorescence in the compounds of uranium. The absorption, says he, seems due to certain vibratory motions, caused by the incidental variations and of their synchronisms with the rays absorbed, of which some throw out luminous radiations by means of the phosphorescence.

ALBUMEN hardly changes in form when it coagulates; dry, it may be heated up to 100° C. (212° F.), without coagulation. Strong alcohol coagulates it, as well as most of the acids, without heat.

It appears that the manufacturers of aluminum and magnesium at Bremen offer two prizes for the two best magnesium lamps. The company makes this proposition on account of a recent discovery, by means of which it is possible to produce magnesium at one half of its present cost. It is evident

that cheap magnesium and an improved lamp will prove highly useful in photography.

CENTRIFUGAL MACHINE FOR DRYING PLATES.

The author says that it is possible to dry a gelatine plate, after development and washing, by causing it to turn rapidly in the air, better than by plunging it into an alcohol bath. For this purpose, he uses a kind of turn-table, which is simply the handle of a drill, at the extremity of which are placed two cross-pieces to hold the plate. A backward and forward motion is now given, and the plate soon dries. This idea may also be applied to the regular coating of glass or mettle plates with bitumen or albumen.—M. HORN.

WHAT AN OLD PHOTOGRAPHER SAYS FOR OLD AND NEW WORKERS.

MR. EDWARD L. WILSON.

DEAR SIR: As I was reading, this cloudy morning, in your most excellent journal, THE PHILADELPHIA PHOTOGRAPHER (but is it not more properly the *World's* Photographer?), how I congratulated myself and all photographers who are so abundantly supplied with such ripe photographic fruitage as is to be found in your publications, particularly in the *P. P.* and *Photographics*.

Aside from the good prophecy of bread and butter, which a careful study (*study*, not merely reading) of these works insures, what an *intellectual* feast is spread before us, and what good company we find ourselves in.

As I turned over to the "Correspondence" of a late copy of the *P. P.* and saw the name "C. Piazzì Smyth," I said, "What! *he* can't be our great pyramid authority, let's see;" and so looking over read "one of the most devoted advocates of photography, and a constant reader of THE PHILADELPHIA PHOTOGRAPHER, is Prof. C. Piazzì Smyth, the world-renowned pyramid authority, explorer," etc. Little did I think while reading with such deep interest, some years ago, of his explorations in and about the great pyramid, and his patient, persevering researches into the significance of the

various measurements, angles, etc., of that great wonder, that *he* was a photographer. However, it did not lessen my respect for this noble man, but increased my interest in what he would have to say about our art. Art? Well, I wrote it before I thought, but now I will not take it back, for after such men have spoken as C. Piazzì Smyth, George H. Croughton, Mr. Robinson, and the long list of authorities referred to in *Photographics*, I will underscore it *art*. We should be truly grateful (and I trust we are—many I *know* are) for the wisdom of our good editor's selections, notwithstanding any "curious comment" "made in our English exchanges." If he had not had the requisite independence, "curious comment" would have deprived us of the most *excellent* suggestions contained in Mr. Hume Nisbit's paper, in the issue of Feb. 20th, together with the two charmingly narrated scenes, one "in Edinburgh," and the other "in London."

To my mind, the descriptions of those two scenes, alone, are well worth a year's subscription to the *P. P.*, though it is scarcely becoming to set any *price* to things of beauty so entirely outside the circle of grossness. How exquisitely beautiful was *this*: "A baby is not beautiful until it can *notice* its mother; then the meaningless bit of flesh is lighted up with a ray from heaven. That God-beam the photographer must catch."

Who ever thought of it that way? or if they did, who ever thought to *express* it thus? Truly *such* jewels are "worthy of being preserved under one cover, and gilt edged." The man who "would not pause a moment to use either a pair of compasses, a straight-edge, or a photograph, if by so doing they served" better than his eye, or a sketch," and who would not "hesitate to call the man a fool who objected" to his "doing so, on the ground that it was not legitimate art," is the man whose opinion I could respect above all "curious comment;" and when I had finished the reading of his communication, I went about my work impressed with the truth of his words, "*Expression*, or *soul*, is what photographers are as yet deficient in."

I expect to pocket some choice "yellow"

nuggets of information, from Mr. Xanthus Smith, whose instructions have already become so interesting; then, too, it is to be hoped that you will keep the blinds of that "office window" open, for when it is closed we are disappointed with the "view" that we *don't* get. Very *sunshiny* are those views, and we should be very sorry to have to dispense with them.

But what *is* there in *our* excellent journal to dispense with? I know of *nothing*. "Queries, Conundrums, and Conclusions," no one would want to go without, and thus be cut off from the privilege of asking questions. "The Open Corner" is so "convenient like" to "chip in," and offer a criticism or a pun. Then "The World's Photographic Focussed" gives us a general view of things.

It seems to me that we have nothing lacking as mediums of photographic information. I should feel *lost* (photographically) without the *P. P.* and that invaluable textbook, *Photographics*.

I had been anticipating a treat from its perusal, but nothing to what I realized. Really, friend Wilson, if it were not for saying it to your face, and seeming fulsome, I would say it is indeed a masterpiece of authorship; it is certainly most *excellent* in *every respect*; and no photographer can afford to go a day without this charming and valuable *vade mecum*. It seems to complete the circle of photographic subjects, and if it does not fill out the whole *sphere* of photographic requirements, it is yet pregnant with *positive* and *negative* truths. Of course the *P. P.* and *Photographics* are not comforting works for a lazy man to read (but then a lazy man won't read them) for he would not much more than get comfortably seated, before he would feel the necessity of getting up and going to work; but then he would have the stimulus of inspiration which is the harbinger of success.

There is no doubt that any photographer who is a little *slow* about feeling the importance of improving the quality of his work, would have his *sensitiveness* greatly increased by letting the contents of the *P. P.* flow into his mind twice a month, and after it had *set*, *exposing* his *p(late)* to the *light* of *Photographics*. He would be

quite sure to *develop* not only a good *positive* or *negative*, but a positively good *photographer*. But I fear I have already made my letter too long and will "drop the shutter" right here. Yours very truly,

J. C. SUNDERLIN.

FLEMINGTON, N. J., March 4, 1886.

CELESTIAL PHOTOGRAPHY.

I had the honor recently of placing under the eyes of the Academy several stellar photographs, made at the Paris Observatory, and among others a print of the nebula near the star Maia of the Pleiades, which had never yet been seen even with the best telescopes. Yesterday, I received a telegram from Poulkova, in which its illustrious Director announces to me that he has just distinctly seen this nebula with the new great equatorial of 0m, 80, recently set up in that observatory.

I am also happy to announce to the Academy that M. Struve has just written me a letter in reply to the receipt of a negative of stars on glass, just as it came from the camera; he recognizes the very great importance of the result obtained. I do not think I am committing an indiscretion in reproducing the following passage of that letter:

"These two negatives, and particularly the one on glass, have created much excitement in the observatory of Poulkova, and you will find here the most enthusiastic partisans of your idea of a chart of the heavens made with the aid of photography.

"I agree perfectly with your intention of bringing together at Paris the Directors of the principal observatories, or of their representatives, to discuss the plan of this important undertaking, and I shall endeavor to take a part in it myself. It might, perhaps, be useful to give an official character to the invitation, from Academy to Academy, for example.

"At the next meeting of the Academy of St. Petersburg, I shall make a preliminary report on the very great progress realized by you in celestial photography."

We are truly grateful for this high mark of approbation, coming from one of the most

eminent organizations of the project which it has proposed.

The Academy will also learn with pleasure that His Majesty Dom Pedro, always so highly devoted to and generous in everything that interests scientific progress, has given instructions to M. Cruls, Director of the Observatory at Rio Janeiro, to make preparations for the construction, to coöperate in the making of the celestial chart, of a photographic apparatus similar to ours, the cost of which is to come out of his private purse.—M MOUCHEZ in *Paris Moniteur*.

A



IG OFFER.

"How doth the little busy bee
Improve each shining hour,
And gather honey all the day,
From every opening flower!"

When Isaac Watts wrote that immortal verse, which for generations has served to shame many a laggard into photography or some other honest effort for a living, he only used the bee as a figure to represent the amateur and adept photographer, and to "gather honey" meant to read carefully from the "opening flower," which is plain English for photographic books."

And now, as the season of sunshine approaches, is the proper time to follow the injunctions of the wide-awake and observant bard.

To enable the enterprising "busy" ones to do this, we have combined with the Scovill Manufacturing Co., to offer, for sixty days only, certain of our publications at one-half price, *i. e.*, four dollars will purchase eight dollars worth of books, postage paid, to any American address. Dr. Vogel's *Progress of Photography*; Tissandier's *Hand-Book of Photography*; Robinson's *Pictorial Effect in Photography*; Gihon's *Guide*. A few words as to these.

Dr. Vogel's *Progress* is the best instructor on dry-plate manipulation there is; no library is complete without it. It treats of all classes of work, including the æsthetic department and finishing and printing the negative. It is profusely illustrated; handsomely printed; bound in cloth-gilt, and is exhaustive on the subjects of light, chemistry, optics, apparatus, processes, technique, and amateur photography. It is published at \$3.00.

Mr. H. P. Robinson's *Pictorial Effect in Photography* teaches wrinkles and dodges that you would never dream of in your photography. It is as full of bright, brilliant ideas—told so pleasantly—as a film is of molecules. It is the best art authority you can study. It is amply illustrated, is bound in paper (cloth 50 cents extra), and is published at \$1.00.

Gihon's Guide, though called the "Colorists' Guide," is by no means confined to instruction in coloring. Its chapters on linear perspective should be memorized by every one who can focus. Every page instructs. It is bound in cloth, finely illustrated, and published at \$1.50.

Tissandier's *History and Hand-Book of Photography*, is one of the most attractive books on photography that has ever appeared in any country.

Part first gives a history of photography, from the discovery of the camera obscura by the Italian philosopher, Porta, including all the interesting details of Daguerre's and Niepce's experiments, their partnership, the death of the latter, the final perfection and publication to the world of the daguerrotype process, the discovery of photography on paper by Talbot, and down to the taking of negatives.

Part second treats of the operations and processes of photography, describing and illustrating the studio and apparatus, the manipulations of the negative process; all the operations of the printing department; theory and practice, including the modifications required by various kinds of photography, such as landscapes, portraits, skies, and instantaneous photography, retouching, enlargements, dry processes, etc.

Part third enumerates the applications of photography, such as heliography, the

Woodbury process, photosculpture, photographic enamels, photomicrography, microscopic dispatches during the siege of Paris, astronomical photography, photographic registering instruments, the stereoscope, photography and art, and the future of photography.

The appendix describes panoramic photography, the heliotype process, the phototint process, the most approved formulæ of the wet collodion process, a simple method of preparing dry plates, and English weights and measures.

The book is beautifully illustrated throughout with fifteen full-page engravings and sixty wood-cuts. It comprises three hundred and twenty-six pages, and is printed on heavy tinted paper. It is bound in cloth and published at \$2.50.

These four books, whose aggregate publication price is \$8.00, we offer for \$4.00 until our joint stock is exhausted. Any two of them to one address, one-third discount from publication price. No discount on a single publication.

The "busy bee" must fly quickly if he would "improve each shining hour." Every book is guaranteed fresh, clean, and new, and from our best stock.

Societies and others forming libraries will do well to secure sets before they are all gone, for after all, the stock of sheets in the bindery is limited.

VIEWS FROM MY OFFICE WINDOW.

THIS is the *best* window in the city from which to witness the street parades. Day before yesterday was St. Patrick's day. The first man I noticed down on the edge of the square was an Italian banana vendor who had moved around from Fourth Avenue. Then the women and children began to gather, and the tens of thousands of men who came to see the thousands of others who were to parade "wearing the green," made the picture a wonderful one. How the sound of a fife or the beat of a drum would sway his mass of expectant humanity from one side of the square to the other, as clouds hanging in a deep ravine appear as they are wayed to and fro by the humor of the wind,

to the one who views them from the mountain top a mile above them.

For three hours the crowd grew, and thirteen more banana establishments, and four orange stands, with several glucose barrows were added to the merchandise quarter. Then a wild huzza! was heard. "The 69th is coming," said they all. Then the drum-major clowned it after the suave chief of police. Then the green flags and blue pants, the Tally-ho coach with the red-haired Goddess of Liberty serving as the apex to the pyramidal composition; the harps, and the bayonets, and barouches, and all the proud horses, filed around Washington statue, and then under my window to Broadway, *en route* to Jones's woods.

The day was lovely—all "the boys" could ask. Each one wore a bit of shamrock from the true Irish soil. Fortunate that it was not sent on the *Oregon*. Everything was green, and fresh, and pleasant to the eyes. The honor of the patron saint is maintained, and the grand chorus of "God save Ireland" rings in my ears yet.

BUT now it rains. I imagined March would give us a kick after the three glorious days just ended. The winding pathways in the Square are wet and black, and a sharp shadow accompanies each pedestrian. What a contrast it makes with yonder color-study.

It makes one think of the Carnival in Venice—the wet—and the color. There are thirteen in the group, of various heights. Sometimes they walk in line, and then they group it among the trees. Each one has a different colored dress from his compeer, and different in style. Each one carries a colored umbrella complementary to his suit. On each umbrella is the advertisement of an umbrella vendor. The brigade has a leader, and he marshals them as carefully as a stage manager. I think he knows how it all looks from my standpoint, and tries to make me feel how utterly unable I am to describe how picturesque it all is, "you know."

I HAVE been discussing for the last thirty-seven seconds an old man pushing a cartload of green cabbages and yellow cauliflower, and red carrots up the avenue. With my opera-glass I see a yellow group of daffy-down-dillys too. Oh! Sweet harbingers of

Spring. Welcome. Across his go-cart is a line of bells, suspended from an upright on either side. They ring merrily, I know, for I hoisted my window to catch their sound. The point with me was to determine how I should make the picture. Not that I expected to get it, but it is my habit when I see a good thing, to study how it would "take" the best. It is good exercise. With the present picture I decided that a southwest view would be best, *i.e.*, on the left side, rather from the back, for there you get the best action—the man puts so much *push* to his work. What think you?

THIS morning when I first looked out I was all broken up by a picture I would give two subscriptions for five years to get. Two little Italian waifs had found an ash-barrel. One of them was not as high as the ash-barrel, though the pants he had on were long enough for a boy that could leap over it. His older pal was the chief investigator. Already an old silk umbrella had been fished out by him, and was being held tenderly over the little one with one hand, while with the other, bits of coal, orange-peel, paper, and rags were being hauled out to the surface and stuffed under the armpits and into the hands of the poor little coat-submerged pantaloons-drowned bareheaded junior member of the firm. I could not see their faces, because the umbrella, broken-ribbed and split though it was, hid them. The picture might be called "A first lesson in a useful trade." You might scavenger with your camera a long time, and not find a picture to beat it.

I AM studying over a *genre* which I mean to get some time, though it will prove an uneasy task. It is the old lady who sells me my morning newspaper. Look out now and you will see her over there behind her stand, seated in a nondescript box which looks just like a coffin on one end. This is only used on cold and windy days. She has a face that Albert Durer would have delighted to paint. But, owing to an attack of palsy, doubtless, her head is on a constant go—a sort of an upward and downward sideway motion. I will have to take my lightning plates and my most enterpris-

ing Prosch Duplex Shutter when I go, if I want to catch her. There is another difficulty, too. On the end of her long, red, inconsolable nose there is always a drop—something like a quick-worker lens, you see.

NIGHT is coming on now, and I must stop. The great tower light near the fountain is drawing magnificent tree forms with its electric brush (this is not a pun or an advertisement) upon the pavements, and the shadows of the people are brighter and clearer than by daylight. There are so many electric lights around Union Square that I often see a man or a woman trotting along with as many as two, three, and four shadows following after.

OUR PICTURE.

AT this season of the year, when all Nature is preparing to bud and bloom, our readers will naturally look to us for a leading style of picture. We have been preparing for them for some time, and hand over to their tender care now "The Bride," from negatives made by Mr. J. F. Ryder, Cleveland, Ohio. It is a long time since we have had for "our picture" anything so naturally and so technically beautiful. A bride, ever so humble or ever so high in life, always seems lovely and beautiful. As Byron says:

"She walks in beauty, like the night
Of cloudless climes and starry skies;
And all that's best of dark and bright
Meet in her aspect and her eyes:
Thus mellowed to that tender light
Which Heaven to gaudy day denies."

And so "she walks in beauty" now to begin the second quarter of our embellishments for 1886—we trust, an acceptable picture.

Whatever "heaven to gaudy day denies" of "tender light," Mr. Ryder has made most excellent use and application of the portion accorded him, for here we have, of a difficult subject, a wondrously beautiful and charming photographic effect—a masterpiece of lighting; a marvel of development.

Both in commenting upon the natural beauty and loveliness of the fair and youth-

ful subject who so graciously permitted the use of her picture, and in descanting upon the qualities of the photograph, we are reminded of those love lines from "The Bride of Abydos," which trip along thus:

"Who hath not proved how feebly words essay
To fix one spark of Beauty's heavenly ray?
Who doth not feel, until his failing sight
Faints into dimness with its own delight,
His changing cheek, his sinking heart confess
The might—the majesty of Loveliness?

Our prints were made, during the past

three months, by Messrs. Roberts & Fellows, at their printing-rooms, No. 1125 Chestnut Street, Philadelphia, and they used the N. P. A. brand of paper, imported for us by Messrs. E. & H. T. Anthony & Co., by the formula given in our pages a short time ago.

"Now," said the photographer, "look cheerful, if you want a good picture."
"Cheerful, the dickens! How can a Democrat look cheerful with no postoffice in sight?"—*Newman Independent*.

Editor's Table.

PHOTOGRAPHS WITHOUT SUNLIGHT, MOONLIGHT, OR ELECTRIC LIGHT.—MR. ARTHUR G. MASSEY, 1109 Market St., Philadelphia, has sent us a series of photographs made by the light of burning buildings during the great Arch Street fire, on January 26th and 27th. Mr. MASSEY writes: "I exposed eight plates between one and five o'clock in the morning." We can almost arrange the six sent us in the order in which they were taken, by the increased detail secured "as daylight doth appear," for there is a gradual increase of subject and detail as the series proceeds. At first, a black group of broken walls with the light shining through the windows and the masses of white here and there made by the flames; then the same with more detail and some figures, and so on until the last, which shows a well-defined and watchful policeman in the foreground, with a fine view of the burned structures and their debris on the other side. Over all, is Mr. GUTEKUNST's golden eagle with out-spread wings. Mr. MASSEY has certainly one the most daring thing yet with the dry late.

BENJAMIN FRENCH, Esq., the veteran stock-ealer of Boston, has favored us with an admirable 11 x 14 bust portrait of himself, which can hardly be excelled. It was taken on his birthday, by A. MARSHALL, with a No. 5 Euryscope lens. It is a speaking likeness and a gift prized by us, of our friend.

The announcement and proposition of the Belgian Photographic Association will meet with high favor in America. The subjects proposed for discussion are of vital importance, and

will be entered into with spirit, we are sure. We trust our societies will earnestly consider the matter and appoint competent delegates, who will uphold the dignity and honor of American photography and our craft.

MESSRS. ADT & BRO., Waterbury, Conn., have favored us with some lovely examples of their work—mostly *child* pictures. The one of two pug-puppies in a vase, one sitting up "wide-awake" and the other hanging its head over the edge "fast asleep," is particularly cute. A little brownie "listening to the time," is also effective.

WE have received the ground plan of Secretary Mr. Michael, for the St. Louis Exhibition. It seems very complete.

Mr. G. CRAMER will embellish our June issue with one of his splendid pictures, "to excel anything done heretofore" by him.

MESSRS. W. H. RAU & Co., 1204 Chestnut St., Philadelphia, have sent us some 8 x 10 photographs of "Winter in Watkins and Havana Glens," which are the perfection of development. Such delicacy and detail, all who have wrestled with such sublime subjects know, can only be secured by judicious exposure and most patient development. These are simply lovely. The series is accompanied by one of an old-fashioned steamship of picturesque hulk and rude lines, which is also possessed of the individuality discoverable, generally, in Mr. RAU's results.

Mr. R. H. MORAN, 245 Centre St., New York, issues a long "bargain list."

THE Australian opportunity advertised in our issues a short time back, is still open for some bright, capable man. It seems like an excellent chance.

MR. W. B. GLINES, Eureka, Kan., receives a very complimentary page of praise in *The Leading Industries of the West*. Both he and his wife seem to be very popular in Eureka.

"ME PIGTAIL."—This is the title of a sweet little portrait we saw at the Exhibition of the Photographic Society of Philadelphia, and over which we expatiated in our comments thereon. Mr. C. S. BRADFORD, JR., has favored us with a copy of the "Darling Child," together with a group of "Miss Frances and her Baby Brother;" "A Snap-Shot," posed out upon the snow-clad lawn, and which our amateur friend calls "The Snow Birds." It is exceedingly cute and so much better than any studied studio effort.

THE name of the BLAIR TOUROGRAPH & DRY PLATE CO., is changed to the BLAIR CAMERA COMPANY, so as to keep the name of the Company more in harmony with their present manufactures, as well as to give them a title more convenient for their customers' use in corresponding. The directors, officers, and management remain the same. The change is a good one and makes it easier for us all.

MESSRS. CHAS. COOPER & Co., 194 Worth St., New York, stand at the head of the producers of pure photographic preparations. Their business in silver alone, would make a western Congressman envious.

SCOVILL'S "St. Louis" Reversible-back Camera is the last addition to the manufactures of the AMERICAN OPTICAL Co., and is produced to supply the growing demand for dry-plate cameras, and to secure rapid exposures. A detachable carriage at the back enables the operator to secure almost an endless number of adjustments without change of the holder in the carriage. It has a cone bellows, is reversible, light, and compact to a degree. It has already become popular.

A TEXAS firm subscribed for our magazine this month, ordering us to "begin with the current issue." Soon the order came following on, "Send all the back numbers for 1886. We are much pleased with the P. P."

The Modern Practice of Retouching, as practised by M. PIQUEPE and other experts, is No. 7

of Scovill's Photo Series—a new edition just out! A very useful book.

A PHOTOGRAPHER, whose name we are asked to withhold, sends us some views of Washington, which are "all red, spotty, ring-streaked, and speckled as Jacob's sheep," which he attributes to the use of colored card-mounts. It cannot be, troubled one. You have tried to make too many negatives in a day, and have not carefully washed them. The hypo remaining in them has caused the spots, having so dissolved the "pink" in the albumen as to cause it to run in all sorts of eccentric ways. When you use A. M. COLLINS, SON & Co.'s cards, you will hardly find them to change the purity of your prints, for that firm is most careful in the chemical quality of their card stock.

PICTURES RECEIVED.—Some interesting examples of their cabinet work from Messrs. BOWKER & SON, Nantwich, England. Messrs. BOWKER & SON are excellent, enterprising photographers. They have long been subscribers to the PHILADELPHIA PHOTOGRAPHER, and use American improvements in their studio. The subjects they send us are mostly what we term "theatricals," and are well managed. Mr. WALTER N. MANCHESTER, Factoryville, Pa., is one of our subscribers whose growth we are pleased to watch from year to year. He favors us with some fine examples of his work now. Mr. J. C. MOULTON, Fitchburg, Mass., adds to our collection a child "blowing bubbles," and some cabinets. They are good.

A GOOD EXAMPLE.—"We have a nice little city here of about 7000; good country around, rich lands, etc. There are three of us here—that is, three galleries—one too many. Two of them have been running each other, and made cabinets at \$1 and \$2 per dozen. I just let them do it, and keep up my prices; and when anyone would come and want me to cut, I would tell them to go where they made cheap pictures. They would say, 'Oh! I do not like their work; they do not make as good work as you do.' I would tell them if they wanted good work, they would have to pay living prices for it. So the result was, my trade has been going up right along, and the reason is that 'merit has its reward.' One of the parties is a member of the P. A. of A. I shall never join any association until such members are thrown out. I get \$5 for cabinets and \$2 for cards; low enough. So will close.

"As ever, your friend,

"GEO. W. LEAS,
"Peru, Indiana."

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



"The flowers that bloom in the Spring, tra-la, have something to do with the case," for we are engaged on a number of novelties suited to the approaching season. Our regular customers are requested to send for sample prints.

Address LAFAYETTE W. SEAVEY,
Studio, 216 E. 9th St.,
New York.

I AM pleased to inform my friends that I have secured commodious quarters for a stock of photographic merchandise, and shall be ready in a very short time to serve them.

I attended the meeting of the Photographic Merchants' Board of Trade in New York, on the 9th instant, during which time I selected fresh goods and made immediate shipments. A full line of amateur outfits will be furnished.

Dr. John Nicol will locate his office with us and will be at the service of all requiring photographic information.

Asking your indulgence for the short delay necessary in arranging a new business, I desire your patronage, and shall be pleased to see you at our warerooms.

Yours truly,

GAYTON A. DOUGLASS.

Chicago, February, 1886.

M. WERNER,

PORTRAIT ARTIST,

No. 102 N. TENTH STREET, PHILADELPHIA.

Photographs finished in crayon, India ink, water colors, and pastel, in all sizes, in the very best styles, and at moderate prices.

Solar Prints and Enlargements Furnished.

ROCKWOOD SOLAR PRINTING CO.

17 Union Square, New York.

TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, *we are not at all dependent on the weather*

GEORGE H. ROCKWOOD,

Business Manager.

FOR SALE.—Gallery in a city of twelve thousand. Whole or part cash. Inventory furnished on application. Address

PHOTOGRAPHER,
Box 1296, Rome, N. Y.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

WILLIS & CLEMENTS,

25 NORTH SEVENTH ST., PHILADELPHIA, PA.

BUCHANAN, SMEDLEY & BROMLEY,

General Agents for the sale of materials.

THE best artists and solar printers in the United States and in Europe use platinotype paper for large and small pictures. This paper is manufactured for Willis & Clements' Platinotype Process, and is the *purest and most desirable* grade of paper made in the world for ink, crayon, or pastel. Samples free.

BUCHANAN, SMEDLEY & BROMLEY.

Importers, 25 N. Seventh St., Phila.

CARD TO THE PUBLIC.

THE undersigned, referring to the circular from Mr. Edward L. Wilson, before published, ask attention to the fact that they have this day purchased his manufactory and studio, and will continue the business of general photography and lantern-slide production at same address.

With the most extensive and costly apparatus ever employed in such work, a splendidly accoutred studio, and with an unrivalled variety of artistic negatives, together with the experience had under our old employer, we are free to say that we can offer a quality of work and such promptness in filling orders, as cannot be rivalled. A needed slide can be made and shipped the day it is ordered.

Lantern slides are our specialty. To their manufacture we add commercial photography of all classes, outdoor work, railroad photography, live-stock pictures and copying.

For amateurs we instruct in the art, develop plates, print, and finish.

For dealers in slides and photo goods, we manufacture from all the famous negatives gathered by Mr. Wilson during many years, and named below, and from special subjects sent to us. Mats, binding paper, and thin slide glass for sale.

For lecturers and exhibitors we make special slides, plain and colored, to order, *from anything that can be photographed*. All such confidential and reserved for the owner's use only.

For artists, glass and paper reproductions of all kinds. We shall also add continually to our catalogue new and attractive foreign and American views.

Our catalogue will be sent free on application.

Present list of slides made and continually in stock. Wilson's personally made views of *Egypt, Palestine, Arabia, Petra, Italy, France, and England*. Wilson's beautiful objects from Belgium, Norway, Switzerland, Sweden, Russia, Spain, Portugal, Austria, Germany, Turkey, China, Japan, Egypt, England, France and Italy, Switzerland of America, Colorado and New Mexico. Statuary—a fine variety: Thorwaldsen's Statuary, Piton's Foreign Comiques, Philadelphia Zoölogical Garden, Clouds, Snow, Ice, Wilson's original and wonderful dissolving sets, including statuary and views from nature, such as the "Flight of Mercury," etc., Mr. Roberts's personally made views of Florida, Georgia, North Carolina, Washington, Virginia, and other Southern States.

The Centennial Exhibition, 1876, New Orleans Exposition, 1884-85, a fine and new series of

"The Sunny South," and a large miscellaneous collection of comics, portraits and views.

Foreign and American slides supplied for Mr. Wilson's celebrated *Lantern Journeys*, described in volumes 1, 2, and 3.

Agents for Wilson's *Lantern Journeys*, and other publications.

Stereoscopic and Imperial (8 x 10) views of the above-named subjects promptly supplied.

Soliciting your patronage, and believing we can maintain the world-wide reputation of our predecessor, we are Truly yours,

ROBERTS & FELLOWS, 1125 Chestnut St.

PHILADELPHIA, Jan. 1, 1886.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced in the preceding card. Knowing their ability, as my former employés, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books. Very truly yours,

EDWARD L. WILSON.

PHILADELPHIA, Jan. 1, 1886.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers, 392 Bowery, or 487 Eighth Avenue.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises, or \$4500 cash without the negatives. Address

LEON VAN LOO,
148 W. Fourth Street,
Cincinnati, O.

DEAR SIR: Please send us three copies of *Long's Art of Making Crayons on Solar Enlargements*, and oblige

BUCHANAN, SMEDLEY & BROMLEY,
25 N. Seventh Street, Phila.

INGLIS & CO.

Manufacturers of

THE TRIUMPH DRY PLATE,

106 COURT STREET, ROCHESTER, N. Y.

We are taking old Negatives at the following prices in exchange for the Triumph Dry Plate:

UNWASHED.		WASHED AND SELECTED.	
5 x 7, each, . .	$\frac{1}{2}$ ct.	5 x 7, each, . .	1 ct.
5 x 8, " . . .	$\frac{1}{2}$ "	5 x 8, " . . .	1 "
$6\frac{1}{2}$ x $8\frac{1}{2}$, " . .	$\frac{3}{4}$ "	$6\frac{1}{2}$ x $8\frac{1}{2}$, " . .	$1\frac{1}{2}$ "
8 x 10, " . . .	1 "	8 x 10, " . . .	2 "
10 x 12, " . . .	$1\frac{1}{2}$ "	10 x 12, " . . .	3 "
11 x 14, " . . .	2 "	11 x 14, " . . .	4 "

Larger sizes in proportion.

Pack securely in stout boxes, bill them window glass, and ship by freight to

INGLIS & Co.

Rochester, N. Y.

FOR SALE.—At great advantage, one 8 x 10 single, wide-angle Dallmeyer lens; perfect.

Address B. W. K.,

care PHILADELPHIA PHOTOGRAPHER.

853 Broadway, New York.

S & M.

CAUTION.—The genuine and original S & M EXTRA BRILLIANT PAPER always has the *water mark* S & M in every sheet.

A good deal of paper is sold with merely the stamp in the corner. This may be good, and it may not, according to what paper is used by the parties who want to work it off by putting on a stamp that has a reputation.

Look through the paper for the water mark.


E. & H. T. ANTHONY & Co.

PORTRAITS IN CRAYON.

The new book by E. Long, on the art of making portraits in crayon on solar enlargements, covers the entire ground, and is sold for the low price of fifty cents. For sale by

EDWARD L. WILSON,

Philadelphia.

 A new lot just received.

EVERY photographer in want of excellent *enses*, for *any purpose*, will best serve his interest by consulting the new illustrated price-list of Messrs. BENJAMIN FRENCH & Co. before purchasing.

WATERTOWN, July 13, 1885.

MESSRS. E. & H. T. ANTHONY & Co.

I had always used the ——— plates, but when his factory stopped was obliged to try Stanley's.

I am much pleased with the result. They are the best quick plates for giving fine chemical effect with good density that I have ever used, and the latitude of exposure is so great that I have not had an overexposed plate since I used them; on the other hand, not a single plate was underexposed.

The 8 x 10 Novel Camera and the 8 x 10 Dallmeyer Rapid Rectilinear Lens I recently got from you, give the best of satisfaction.

Yours truly,

C. S. HART.

Send on the plates at once, as I am nearly out of Stanleys.

ALEXANDRIA BAY, Oct. 21, 1885.

MR. E. ANTHONY.

DEAR SIR: I took your advice and started with Stanley plates, and from that time to this I have not used any other, and shall continue to use them until I can find something better.

I could show you a number of letters ordering duplicates, and giving great praise to the brilliancy of the views sent. I shall send you a view of the steamer Maud running full headway, while I was on the steamer St. Lawrence going the opposite way, and also one of the steamer St. Lawrence I made from the land while she was going seventeen miles an hour. I made them with the Prosch Shutter attached to the Platyscope lens.

I must say that Stanley plates have helped me out of many a difficulty this summer.

I might add that the only paper I use for all my work is the new N. P. A. Pensé.

Respectfully,

A. C. MCINTYRE.

Patent Improved Telescopic Folding Tripod, with automatic leg fastenings. Perfectly rigid, the legs being held in position firmly, and it is impossible for them to become unfastened until the spring that holds them in is pressed back. This spring also forms a washer for the tripod screw.

E. & H. T. ANTHONY & Co.,

591 Broadway, New York.

WANTED.—By a good general assistant, situation in good gallery, anywhere, so with right party. Can run gallery if wanted. Address Operator, care of H. S. Clark, Thomasville, Ga.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

FOR ALMOST NOTHING.—I have a quantity of Chance's A No. 1 glass, the best manufactured, which I will sell at my gallery for one dollar per hundred for 5 x 7 and 5 x 8, and two dollars per hundred for 8 x 10. Geo. G. Rockwood,
17 Union Square, New York.

FOR SALE.—Cheap, complete outfits for 4½ x 3½, 5 x 4, and 8 x 5 plates. For particulars, Address "E,"
Office of PHILADELPHIA PHOTOGRAPHER,
853 Broadway, New York.

WILSON'S PHOTOGRAPHICS. Fifth thousand.
A splendid present.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a fair retoucher, operator, and good printer. Address 22 Kimble Street, Utica, N. Y.

By a lady in a small gallery. Can retouch, spot, mount, and assist in printing. Address Miss Edith L. Graham, Buffalo, N. Y.

By a young lady in a gallery, to spot, mount, and make herself generally useful. Address A. V. P., 3947 Reno Street, Philadelphia, Pa.

In a first-class gallery, by a young man of good habits and qualifications. Best of reference. Address F. J. Luce, Knoxville, Tenn.

As a first-class view and architectural operator. At New Orleans during the whole of the first Exposition. Best of references. Address A. A. Baldwin, Ludlow, Vermont.

By a young man of experience, as a first-class retoucher. Salary \$20 per week. Address A. K. Falconer, 3 Lafayette Av., Brooklyn, N. Y.

By an A No. 1 general assistant, well up in all branches of the business. Steady and temperate. Can furnish best of reference. Address Harry Geisel, 37 Court Street, Kankakee, Ill.

As printer and toner. Can work as a retoucher, operator, or in the dark-room; also understands viewing. Address E. Davis, 18 Fremont St., Providence, R. I.

In a first-class gallery as printer, toner, or operator. Terms, \$15.00 per week. Address F. Hall, Box 406, Norwich, N. Y.

HYPOSULPHITE OF SODA FOR PHOTOGRAPHERS.

CHAS. A. W. HERRMANN,
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LIPPINCOTT'S NEW MONTHLY MAGAZINE
Everybody should read it. Price reduced to \$2.00 per annum.

"In truth, the new magazine is a gem, and its low price ought to put it up to a large circulation."—*Philadelphia Times*. A Specimen Number sent postpaid for 20 cents.

J. B. LIPPINCOTT COMPANY, Publishers,
715 and 717 Market St., Philadelphia

KEYSTONE DRY PLATES.

AHMEDNUGGUR, BOMBAY PRESIDENCY, INDIA.

MR. JOHN CARBUTT,

Keystone Dry-Plate Works,

PHILADELPHIA, PA.

DEAR SIR:

I received your Special Portrait Dry Plates from Messrs. Scovill Manufacturing Co., New York. I found your Plates very excellent for this climate; never frill. I enclose two C. D. V. Portraits, which are prints from your Keystone Plates; also my likeness. Mr. Wilson wishes me to send him some negatives for an illustration in his journal. I shall try to send him some negatives made on your Plates.

Yours truly,

NURSOO DEWJEI POOPAL,

Photographer,

AHMEDNUGGUR.

"THE MOUND CITY"

Photographic Stock House



Offers the Most Complete line of

Photographic Apparatus, Chemicals,
Picture Frames, Mouldings, Mats,
Albums, Etc., in the market,
at bottom prices.

Professional and Amateur Outfits a Specialty.

AGENT FOR

KUHN'S LIGHTNING DRY-PLATE INTENSIFIER,

AND

KUHN'S SENSITIZED PAPER STRETCHER AND DRYER.

Address

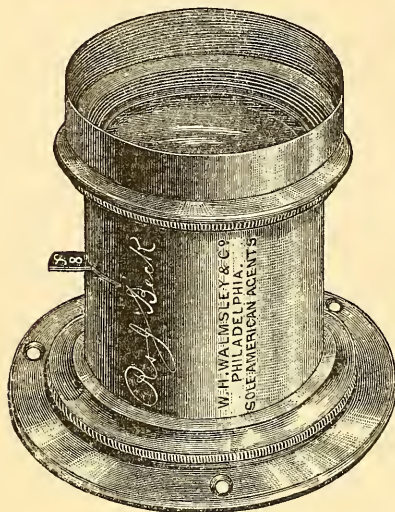
H. A. HYATT,

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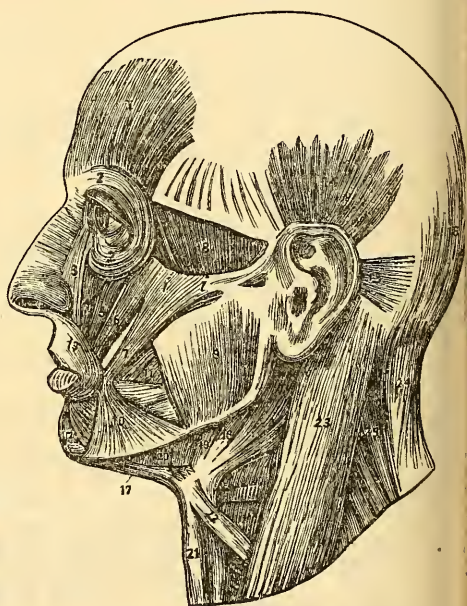
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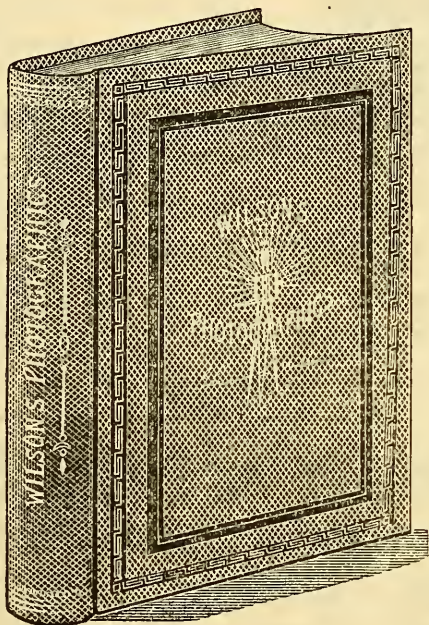
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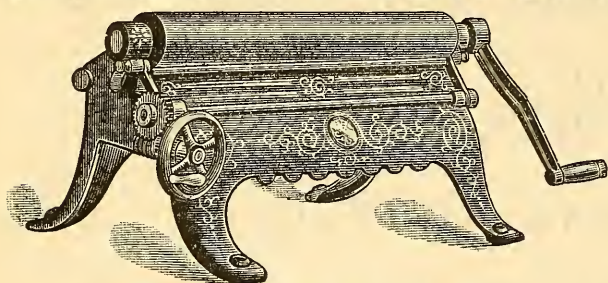
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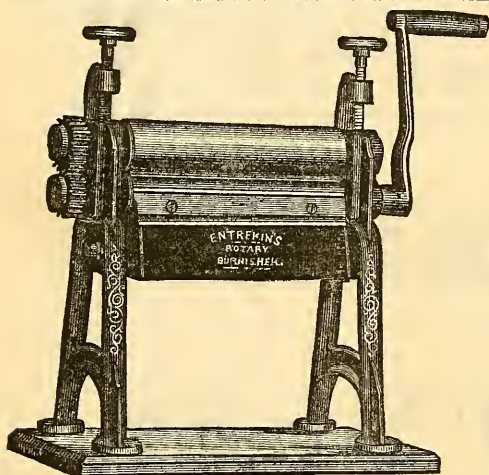
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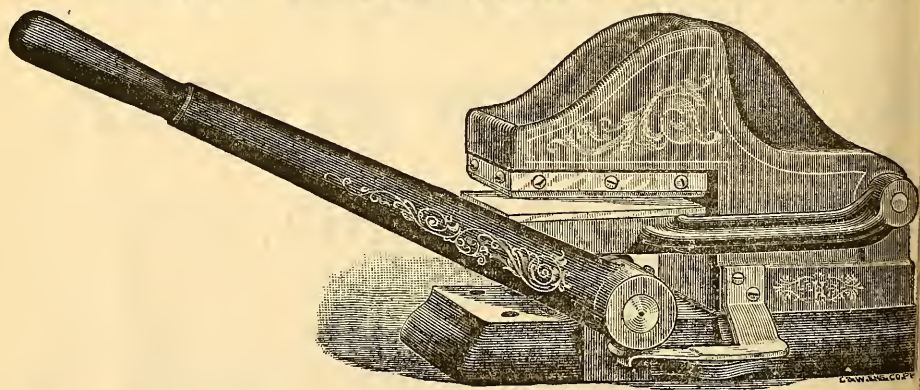
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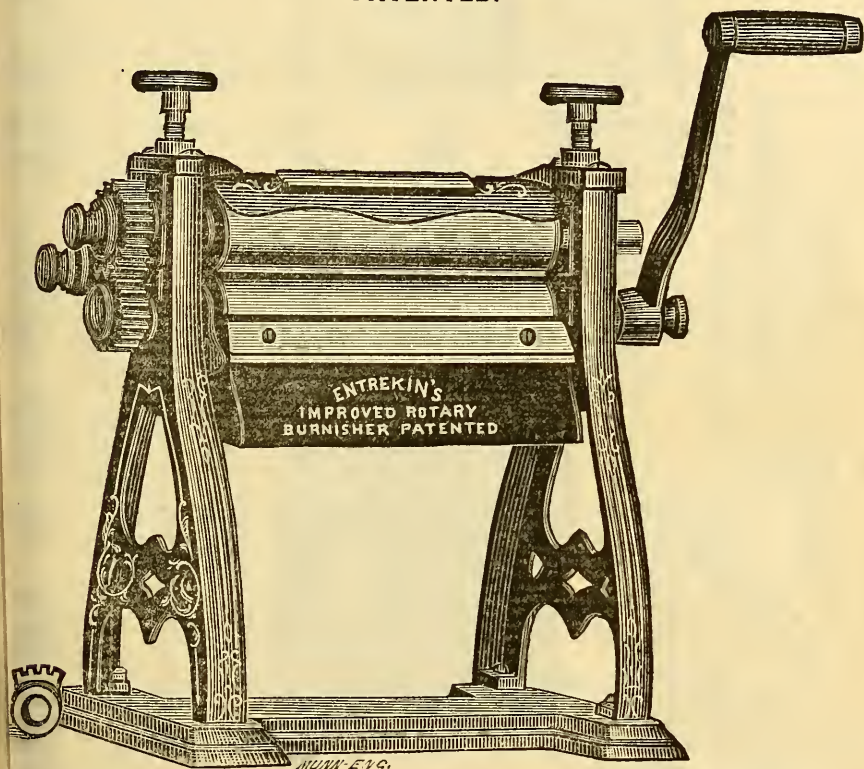
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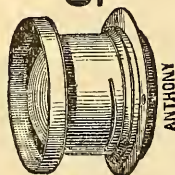
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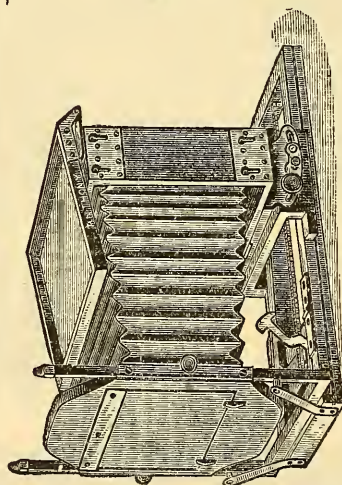
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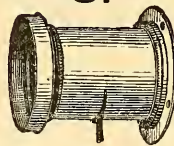
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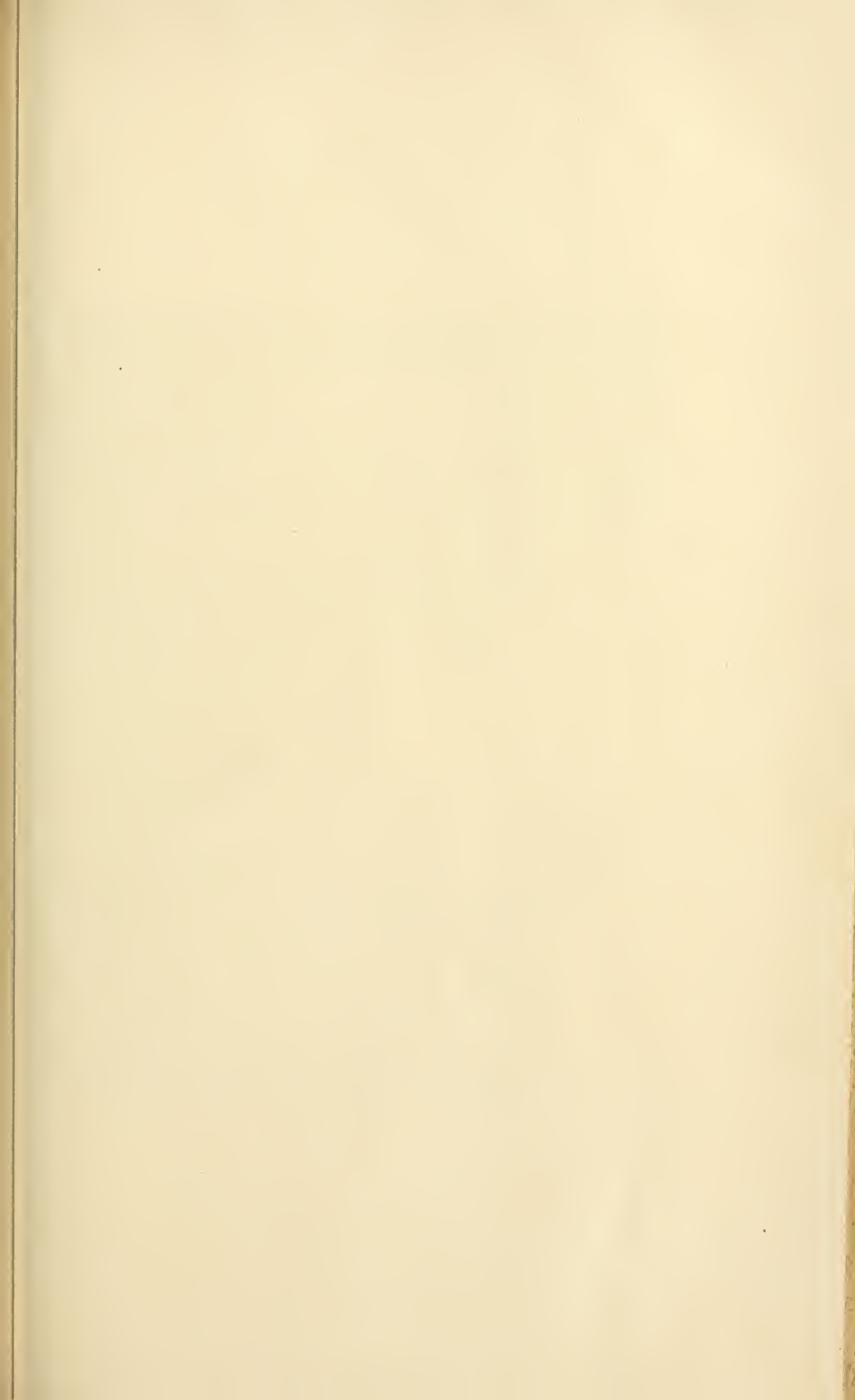
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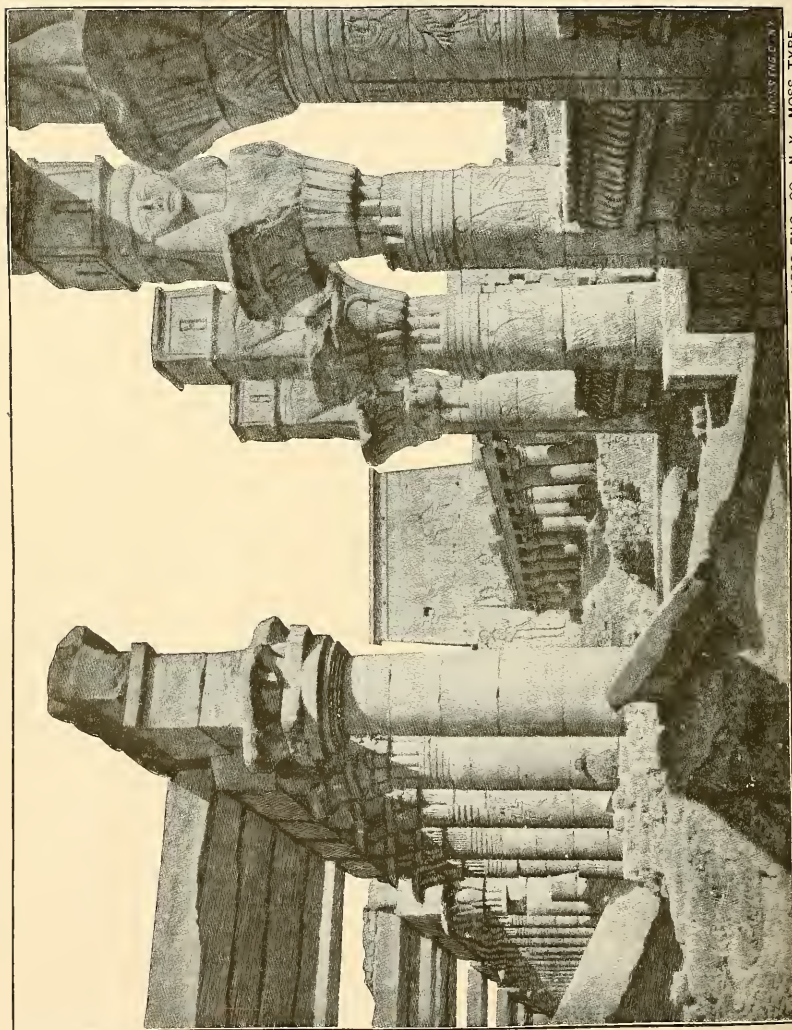
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Vol. XXIII.

APRIL 17, 1886.

No. 272.

ÆSTHETICS AND PHOTOG- RAPHY.*

BY XANTHUS SMITH.

WHEN the compliment was paid me of asking me to read a paper to you this evening, gentlemen, I consented, only partially realizing the difficulty of finding matter that would be at all interesting to you, and as I entered upon the work of its preparation began to appreciate fully my entire inability to bring forward anything worthy of the attention of the members of this Society, composed as it is of gentlemen who, by cultivation, by the most genuine research, and by that best kind of practical knowledge which is gained by a love of a pursuit and large means and time to devote to it, have placed the Photographic Society of Philadelphia at the very front in the art and science of photography. And I must here say that this enviable rank is of no sudden growth, it has not been newly taken on, like so much connected with photography now in these days, when everybody is practising

The Philadelphia Society has grown up with photography from the infancy of the science; many of its members who are with us and some who have passed away, men of the first ability in their professions, have travelled with it throughout its entire progress, investigating, discovering, proving, and building it up step by step to its present

advanced position. So that in coming before you this evening to talk about art in its connection with photography, I would like what I have to say to you upon the subject, taken as a mere turning over of ideas, and not as the laying down of any fixed rules which are to be supposed to be new to you or considered paramount, for I feel that in this age of advancement, when so many old doctrines and theories are being superseded by views that stand the light of modern research better than the old ones, one must be careful in the matter of art too along with the rest, that they look broadly upon the subject, and investigate well all new ideas that come in, no matter how much they may seem to conflict with what has been previously established. And, at my age, and trained as I was upon views which constituted a very different standard of taste from that prevailing at the present time, I feel that there is a danger of old fogyism, and I would probably not have presumed to occupy your time at this meeting, had it not been that I feel by a bringing together and comparison of views new ideas are often suggested which may be useful.

Most of the writing published about art now, is in the direction of impressionism; that is to say, critics have built up certain themes and theories about associations of ideas with art—religious, moral, or emotional—which have nothing whatever to do with the general ruling principles that govern beauty of form and design. These critics

* Read at the Photographic Society of Philadelphia, April 7, 1886.

laud the productions of particular artists who are doing their works in such new and strange ways that the public are attracted and mystified by them, and would, I think, generally condemn them were it not that what they read upon the subject of art is written by persons who do not understand anything of the practical business of the painter. I say practical business, for much as the ultimate purpose is to appeal to the sentiments only, there is, notwithstanding, along with it much of the earth earthy, even to our invaluable ochres and umbers, and certain mechanical dexterity in their application, just as there is of nice chemical action and careful manipulatory details about photography. To exemplify strongly what I mean, some of the most earnest and enthusiastic of the pre-Raphaelite painters, whose aim, you know, it was to attain the utmost purity of sentiment, considering all rules of taste and beauty as sensuous and degrading to high art, went so far as to exclude the pigments made of earths from their palettes, and used only vegetable and the most refined chemical colors upon pure white canvas, which was a perversion of the work of painting so far into sentimentalism that it lost its true character and became a strange sort of symbolic illumination. Yet see how much captivating writing there was published about the work of these painters, what enormous prices were paid for their works by those who thought they understood them, and how the majority were mystified by them, having too much good taste and sense to feel that they were right, yet fearing to raise their voice in condemnation of them.

This vague and mystifying writing about art is a thing that is naturally to be looked for. It is the consequent outcropping of, and overdoing of, views which are excellent in their origin. As people advance in cultivation, certain refined and poetic ideas are developed which require response in literature, music, and art. A mere transcript of a scene under ordinary circumstances, is not sufficient to them; consequently, painters strive to clothe their works with certain peculiar and transient effects or poetic sentiments, that they may prove congenial to the instincts and demands of such elevated tastes. Now it is easy to be seen that it

soon becomes a difficult matter to draw the line where the reasonable ends and the visionary begins in such matters. With the universal disposition which we see for people to go to extremes, it immediately becomes evident that we must have a general rushing after some great exponent of such matters for the time being; and if this exponent happens to be a man of genius like Mr. Ruskin, his influence upon matters of taste is immense, and the few who, though willing to admit the truth of a great deal of that which is said, cannot by any means go so far, are either trampled out in the rush of popular opinion or else left standing alone in the rear helpless and peculiar. I think I may exemplify the matter somewhat by a reference to the subject of etching. You all know what an interest has grown up within the past ten years in etching. The exhibitions that we have been shown, the money that has been spent in making collections, the keenness with which artists and amateurs have set to work to produce, and the volumes that have been published upon the subject. Now etching is eminently a vague and suggestive art. It is, gentlemen, the very antipodes of your art, and in this very vagueness and suggestiveness consists its strength with these impression extremists; for on its incoherent scratchings they may build endless wonders of imaginative art. And in their wild enthusiasm they would stamp out all that is truly excellent and really difficult of attainment in etching, namely, the power to draw correctly, a knowledge of perspective, and the principles of composition, a subtle appreciation of the value of lines in their greatest delicacy and force and adaptation to the representation of various textures together with a power of happy selection of subjects adapted to the art. The amount of skill and practice required to do this, they say, reduces it to mere professional work, and robs it of those rare qualities which can only come from an exalted imagination through a hand less mechanical. I think the day probably not far distant when these leane critics will turn their attention upon photography. All that is excellent in the art will be cast out as mere mechanism, and the ill-focussed, fogged, and blemished on will be held up as works of art. The more fog there is, the more room will there be for

play of imagination, and consequently the greater will be the artist. What a glorious period will not this be for the makers of dry plates. Might not they and the stock-dealers do well, even now, to be storing up their unlucky brands for such time?

Well, to be serious again, we will turn our attention to the discussion of principles, which, although they will bring us down from the visionary to the practical, and stamp us as mere workmen, will, I think, make us none the worse for that. Some of the greatest artists of old, whose works have stood the test of time and sound criticism, were to a great extent practical workmen. They knew every part of the business of a painter thoroughly, many serving a sort of apprenticeship at it, grinding the paints and repairing the canvas. They drew from the antique and the life in the most careful manner, and we see in the earlier works of all of them a painstaking thoroughness, not only in their compositions, but in their mode of using the materials, searching out all that they could find of the remains of the best Greek art, appreciating its excellences, building upon it, and striving to improve upon it. There was a tangible reality built up in art, which, as I say, has stood the test of centuries. Certain principles were wrought out, and their truth and excellence made manifest in the works of Da Vinci, Michel Angelo, and Raphael, and the best productions of the Dutch school, which instead of being superseded by anything better to-day, seem rather to stand as a beacon to the few who can appreciate them, in the wild sea of theories and isms. These principles constitute truth and grace of design, beauty of composition, and harmonious and agreeable effects of light and shadow, qualities that it is desirable we should perceive in nature, either by our own natural instincts or by training. I say by our natural instincts, because I believe there are many persons born with natural taste or power of perception of the beautiful and picturesque, just as there are those born with a talent for music or literature, who, though they may never have had opportunities for turning in these arts, nevertheless will always search out and appreciate that which is most excellent in them. And where such a natural taste exists, with those turning their

attention to art as it may be practised with the camera, even a slight amount of time bestowed upon the study of the best art principles which have been established, will add immensely to the enjoyment of the pursuit, by the interest that is aroused to search out or build up good effects, or the gratification of having them suddenly presented to us as is so often the case in nature, and above all, the satisfaction of feeling that we are working in accordance with certain great principles or truths.

Now, as I said in the beginning, gentlemen, you are all so familiar with these art principles, as attainable in photography, that it would be folly for me to occupy your time by going into their details in this paper. I will, therefore, avail myself of the arrangements which you have kindly made for showing a number of views with the lantern. I have selected a number of fine examples of art both in landscape and figure subjects, the works of eminent painters, of which your member, Mr. William H. Rau, has been so kind as to make me slides. These I propose showing with a selection of slides made from scenes taken from real life, and from nature, by members of this Society, and I shall, I think, be able to show, in the productions of the members, the same art principles which make the works by the eminent painters so attractive and so enduring in their excellence.

[Mr. Smith then proceeded to show a number of slides made from fine engravings of landscapes by Linton, Stanfield, Harding, and Turner, Royal Academicians, views of places in England or on the Continent of Europe, in which, in addition to fine composition, there is displayed the most agreeable arrangements of light and dark in various proportions, and followed them with a series of slides from negatives by the members of pictures shown at the late Exhibition. We regret that the report came too late for us to include these comments.—Ed. P. P.]

CELESTIAL PHOTOGRAPHY AT THE OBSERVATORY OF PARIS.

MESSRS. Paul and Prosper Henry discovered November 16th last by means of photography a new nebula in the Pleiades. This nebula is highly intense and presents a very distinctive spiral shape; it seems to emanate

from the star maia with at first a westerly direction, and then turning abruptly toward the north. It extends about three degrees. These gentlemen reproduced its image at four different times, namely, November 16th, December 8th and 9th, and January 8th; but up to the present time it has been impossible to see it in our telescopes. Cut No. 1 shows the reproduction of this nebula.

The fact mentioned above, says M. Camille Flammarion, shows a new progress made by the laborious astronomers of the Paris observatory. A very marked progress, the importance of which it would be impossible to overestimate.

The apparatus used is composed of two lenses in juxtaposition, contained in a metallic tube of the form of a parallelepipedon; one of the lenses, of 0 m. 24 opening, and 3 m. 60 of focal distance is used for observation and serves as a pointer; the other, 0 m. 34 opening, and 3 m. 43 focus is achromatized for the chemical rays and is used for making the photographs. See cut No. 2.

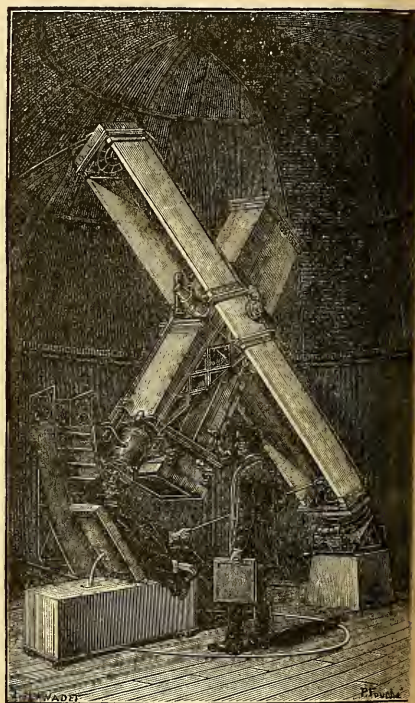
FIG. 1.



As it has been stated, stars of the first magnitude are photographed in a half-hundredth of a second; those of the second magnitude in one and one-third hundredth and so on. The duration of the exposure becomes more and more prolonged as we descend in the order of brilliancy. The

weak telescopic stars of the twelfth magnitude require two minutes to make their impression on the sensitized plate, those of the thirteenth magnitude, five minutes; those of the fourteenth, thirteen minutes; those

FIG. 2.



of the fifteenth, thirty-three minutes; and those of the sixteenth, one hour and twenty-three minutes. These stars are the last that have been photographed by means of this objective of 0 m. 34 (this objective shows to our eyesight only stars of the fourteenth magnitude).

The result of this long exposure shows that during this time the most brilliant stars continue to act on the plate; they produce on the plate well-defined circular disks, although they themselves do not possess any, and these disks, due to the vibration which radiates regularly around the point acted on by the light (as the undulations in water), are in a ratio to the luminous intensity of the star. The ratio is not absolute, because the chemical rays which are photographed are not the same as those that act

upon our retina; but as stars are generally but faintly colored, the ratio remains sufficiently exact. The yellow and red stars being less photogenic, give smaller disks.

The chemical rays being different from the luminous rays, it might be possible for

M. Camille Flammarion adds: Let us contemplate for a moment not simply a group of stars but a deep view of the sidereal universe, taken directly on the infinite, such as is presented by the photograph reproduced by helio-engraving (cut No. 3)

FIG. 3,



photography to reveal the existence of stars and creations invisible to the human eye, however aided by telescopes and emitting in space none but ultra violet rays. Such might be the case in regard to the nebula which has just been discovered around the star *maïa*, and that nobody has ever seen can see.

without any intervention of the hand of man. Let us reflect that in this square taken from the heavens (four degrees about), there are three thousand stars, and that the whole plate, much larger (0 m. 26 + 0 m. 23 and seven degrees in surface), contains more than five thousand, as many as are seen by the naked eye in the entire sky.

Each one of these luminous points is a sun launched into limitless space, carrying the mysterious destinies confided to it; and all this moves, swarming atoms, in space, but atoms of the dimension of our sun endowed with power, energy, light, heat, with enormous radiancy, and travelling in the heavens with such rapidity that the course of a cannon ball of our most rapid projectiles is but repose, immobility in comparison.

The supreme law of universal attraction to which the poorest planet, the most miserable satellite, the uranolith itself as well as the imponderable comet lost in space, and the insignificant shooting star which cannot escape its influence, carries all before it in this immense vortex. Who can conceive the idea of these millions of worlds precipitated into the universal abyss? In stopping at those of the fourteenth magnitude only, their number exceeds forty millions for the whole of the heavens. How shall we know them, how shall we count them, how shall we follow their course? Herschel, the great Herschel, Salande, Argelander, all these poets of the infinitely grand have exhausted their lives without having done so. If all the astronomers in the world were to agree on the same work they would all be dead before having commenced it, so to speak. For verification would be longer than recording, and besides the document would neither be authentic nor absolute. Now here is a work that photography can accomplish.

M. Flammarion after this eloquent plea in favor of the photographic mode of observation, invites the astronomers in the whole world to commence work at once, so that our century shall leave to future generations the imperishable monument of the authentic state of the heavens seen from the earth at the end of the nineteenth century.

And he then adds:

"Assuredly we do not ignore the fact that some astronomers belated on the shores of the past, impregnated with the puerile sentiment of their exalted personality, imagine that their own ideas are the only ones that possess some value, and remain blind to the splendor of the new era proclaimed by these grand results.

"The veritable friends of truth should join together without fear and with all liberty of action, to apply without delay a method at once so simple and fecund to realize this splendid progress; the absolute authentic representation of the actual state of the sidereal sky. In the future may be resolved the grand and formidable problems of the architecture of the heavens and of stellar life."

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

"UNHAPPY ARTIST" says his life is a burden, because his "father is a shoemaker and he has to wear 'home-made' shoes." Worst of all, "they do so excruciatingly squeak when I trip from my dark chamber to my camera, to and fro, as to shock my patrons beyond their temper." Out of revenge he comes to Q. C. and C., and says, "What *shall* I do?" Well, now—the squeak can be unsqueaked by the injection of powdered French chalk through a perforation in the inner sole. Then if pa will make a free use of the same substance between the soles when the boots are being made, it will effectually prevent any trouble of this nature, and make an "unhappy artist" a better man.

A GRIM photographer from Chicago wants to know "how to get the most natural effect in a photograph of a corpse?" Now, corpses vary, like human beings, but a Frenchman has, it is said, found means to restore the life-like expression to the eyes of dead persons. He places a few drops of glycerine and water in the corners; lifelike expression is reproduced.

"LADY amateur" from Duxbury, anticipating an early trip to Europe, writes: "Desiring to take everything American, would like to know how to make things secure." Who will help-her? The following may be of service:

Corks may be made impervious by soaking them—best quality—for several hours in a solution of one-half ounce of glue or gelatine in a mixture of three-fourths ounce of glycerin and one pint of water, heated to a temperature of about 50° C. Such prepared

corks may be made nearly proof against acids and other chemicals, if they are dipped, after thorough drying, for ten or fifteen minutes into a melted mixture of four parts of paraffine and one part of vaseline.

Again: A cement, consisting of finely powdered oxide of lead and concentrated glycerine, has been introduced for securing glass stoppers. It dries rapidly, and becomes very hard, but it can be easily removed with a knife.

S. C. WHIPPLE asks "the best way to clean a graduate." We answer: Use a small test tube brush rubbed over a piece of Castile soap, or dipped in alcohol or water of ammonia, and apply your muscles.

"BURNED fingers" is politely informed, that should another such accident occur, that the painful burn produced by nitric acid may be successfully treated by a dilute solution of sulphurous acid applied instantaneously.

To many inquirers, we re-state the fact that photographs may now be mailed at the rate of one cent for two ounces for postage. A silver dollar weighs very nearly an ounce. Hence, any photograph not heavier than two dollars can go for a single one cent stamp. A five-cent piece added will give the ounce. If you have not the silver dollar, five nickels and a small copper cent will give an ounce weight.

"A poor fellow, in want of accessories," asks "how to make artificial rocks and such." We give a receipt for "a stock solution." Now "rough-hew it," as you like.

Thoroughly soak soft newspapers in paste made of one pound of flour, three quarts of water, and a tablespoonful of alum, thoroughly-boiled and mixed. Make the final mixture about as thick as putty, and it will harden like papier maché. This paper may be used for moulding and shaping all sorts of things. Rough wooden framework is needed to build on.

How may I produce on the negative the effect of falling snow?

A. J. SCHILLARE.

This requires the exercise of the brains, arms, and legs. Mix a solution of India-ink

and water, and place it in an atomizer, such as is used for perfumery. As your assistant forces the spray into the air, holding the negative in your hands, watch your opportunity and catch the falling drops upon it, taking care that the direction in which they strike the negative is at the proper angle, to give the effect of *falling* snow. Do this before varnishing. The effect is—*snowing*.

I SEND you by mail a cabinet photo. which is covered with spots. I have been troubled with them more or less for the last seven years, and cannot find out the cause of them. I keep my bath at 60° and silver about two minutes. I have been drying the paper between blotting-paper, and lifting it from the bath and letting it dry spontaneously, and still they come; but they never show until they are placed in the water before toning. Can you explain the cause of them and give it in the P. P.? T. T. J.

The "spots" alluded to by our correspondent are black, and seem embedded in the print. Has any one met them, and can any one suggest a remedy?

"M. W. C." ("an old hand"), who stated his "paper trouble" in our last Q. C. and C., writes again thus:

"Many, many thanks to you and to Mr. Fellows. I begin to think it is as you intimate—the paper not dry enough before fuming, that is the cause of the spots. It almost seems impossible that it should be so, for it seems to me that the paper is very dry when I fume; but yesterday I took two sheets and put them on the rack or frame, with clothes-pins, singly, and every one of those prints turned out perfect. Out of the other eight sheets about half of them were thrown away, on account of spots; they were, when partially dry, put *back to back*, or on double, and undoubtedly did not get as dry as the others. I have managed that way for years, putting two sheets on a rack and hanging up in drying-box back to back, so as to take less room. I have been annoyed exceedingly at times in that way—while some sheets would be all right out of same batch of paper, others would be all wrong. Next time we print I will try and *dry enough, anyway*."

Later he writes :

"Am satisfied that my paper was insufficiently dried. For years I have, in drying it, put it on racks double. Somehow of late it has bothered me very much ; to-day, put on racks singly, and dried a long time, and left it fuming *over night*. Spots have *vanished*, and my heart is joyous."

R. S. sends some vignette prints and asks "what those are which look like measles in the dark parts, around the head particularly?" They are due to moisture on the paper before fuming or to albumen in the silvering bath or both.

Answers.

To remove silver stains from a negative. Make a weak solution of cyanide of potassium, and with either the end of the finger or a plug of cotton wool rub over the parts stained, afterwards well wash for several hours. If the negative has been varnished, remove the varnish by soaking for some time in alcohol and rubbing with a plug of cotton wool.

"KEHAMA."

To remove streaks from a negative. If the negative has been varnished proceed as follows: Soak for some considerable time in alcohol, and then rub over with a plug of cotton wool, using the alcohol freely; this will remove all varnish. If the negative has not been varnished I am afraid there are no hopes for it.

"KEHAMA."

Busts with dark background. I presume Isaiah S. means "vignettes" with a dark background. If so, let him use a background of green baize, being careful of his light falling upon it; and place between the sitter and the lens a large vignette cut in cardboard.

"KEHAMA."

C. H. Howard. This inquiry must have been put either by an utter ignoramus or a conceited trickster. If the latter, it is unworthy of any reply; if the former, there may be some slight hope of his photographic future. Let him try different lengths of exposure, and he will arrive at a conclusion which is amongst the A B C's of photography.

"KEHAMA."

DEFECTS IN GELATINE DRY PLATES.

BY JAMES C. BALMAIN.

IN these jottings on gelatine plates, perhaps it will be my best plan to mention consecutively a few of the more important or frequently occurring defects, touch on their cause, and suggest such remedies as my own experience has taught me.

Speaking more particularly to those using commercial plates, first they will find (after struggling with the many wrappings) upon opening a package and looking along the surface or even through them, scratches and holes. This is obviously caused by particles of grit or dust between the plates, and if the two surfaces come in contact by rough handling, these marks are sure to appear on the finished negative. At other times the surfaces, upon looking at them by reflected light, will appear matt—more at the edges than elsewhere—caused by the drying of plates at an unequal temperature, or by the edges coming in contact with something that contaminates the coating. After fixing such a plate the portions that showed the matt surface will be of a different density, as the resulting print will testify.

You will all be aware of the remedy for plates with scratches and holes, the usual spotting before printing, to make them of the same density as the surroundings. As to the other markings, I would advise—when at all practicable—to examine every plate before placing in the slide or carrier, and should such marks appear, place the plate in the slide in such a manner that it will not cause a loss of the picture. For instance, if the plate is to be used for a bust or full-length portrait, place the marked edge to the top of slide. By doing this you secure the background clear, and the defect of the drying mark is not of so much importance on the dress or drapery. This rule will not always apply to landscape work; the operator then must be guided by circumstances, or, as many do, trust to luck. Another source of marking can be traced to packing-paper.

Nearly all makers use paper in some form, either at the edges or between the plates to keep them from contact. One

sample of plates I used had a sheet of orange paper between them, the paper being soft, pulpy, and not thoroughly desiccated, you can easily imagine how beautiful was the grained impressed upon every plate, as it is a well-known fact that, by pressure, an image can be formed, though lacking gradation. The packing of plates is a serious question for makers to solve; most of the stain and marking defects can be traced to the paper plates are packed with. No matter how carefully packed, even with corrugated paper at edges, or paper between each plate; if kept a long time they will deteriorate unless absolutely free from atmospheric influences. In my own practice, and supposing the plate moderately flat, I prefer the lesser evil of scratches (which can be filled up in the negative), and pack all plates face to face, and wrap them very tightly in several papers, one of which may be waterproof. I also think plates improved by being kept in close contact (film to film), but free from air. Plates that have been subjected to the influences of air for any time will show after development and fixing a beautiful iridescent surface.

Now a few words on opaque spots. The most violent form I would call pits. They show on the surface as dull patches. Any one familiar with the *modus operandi* of plate-making will no doubt have observed them, even as they form. I saw it stated somewhere that they were caused by carbonic acid gas in the gelatine. This theory I thoroughly believe, though some kinds of gelatine are quite free from it. Coignet's gold-label gelatine I have found produces an endless crop of pits. Any one can easily test this by making the following experiment. Make an emulsion of Coignet's gelatine, and filter well. Now coat a plate, place on a level stand, and bring your eye on a level with the plate, looking toward the light, and you will observe, just before the coating sets, little hollows forming; in fact, they appear to me like small explosions repelling the gelatine, which sets before the hollow can be filled up, consequently leaving a greater amount of bromide of silver in the hollow, which develops, fixes, and dries quicker than the surrounding portions. In fixing such a plate, one is apt to think it

will be a transparent spot, by reason of its fixing more rapidly; but, when the whole is fixed, the illusion is dispelled, an emulsion giving such spots can be cured by the addition of say one drachm of a saturated solution of alum to every ten ounces of emulsion, the addition of alum being a safeguard against frilling, though slightly slowing the plate; or melting the emulsion at a moderate heat once or twice before coating. This increases the rapidity, but tends to decomposition, and consequent frilling.

Another form of spot is caused by particles of dust falling upon the plate before the coating has set, which have a tendency to form a nucleus to attract the bromide of silver; or again, careless melting and filtering, and a host of other things, of which the experimenter in plate-making only knows.

No spots I have seen are so aggravating as the opaque kind. To think of and compose a picture to one's satisfaction (if ever it is done), and then find the negative pitted with these spots, often causes one to lose their moral tone for the time being. I know of no certain remedy for such, unless it be a slight rubbing by the finger which may remove them before drying.

The spots I have called pits are not met with so frequently now as formerly. Makers are bringing their plates to such a pitch of rapidity by increased heat applied to the emulsion, or otherwise, that it tends to dispel them.

Clear spots that are not caused by abrasion of the film, are mostly due to impure chemicals. Very often the alcohol is at fault; they show more in plates made by any of the ammonia nitrate processes, but sometimes the appearance of large patches, irregular in form, and transparent, would lead one to suppose that the particular patch was insensitive. I can give no plausible solution as to the why and wherefore.

But by far the most troublesome of plague spots is the opaque spot; it seldom can be eradicated, whilst the clear spot may in a measure be remedied, with time and care, by delicate spotting.

Stains very often can be traced to the glass, and if examined closely, the explanation will probably be found in the thumb

and finger-marks underneath the film. I do not mean to imply that all stains arise from handling the glass with dirty fingers; a bad quality of glass may be used that has impurities in itself, and makers cannot be too careful in their selection of good, clean, and even glass. Dry plates are made at so low a figure nowadays that it is imperative that cheap glass should be used, bringing with it the usual amount of blisters, bells, scratches, etc.

Stains also arise from the wrapping papers, and by the careless manipulation of the plate during development and subsequent treatment, which only show upon the drying of the plate. But this being entirely under the control of the operator, can hardly be called a defect in the plate.

As to thin edges of emulsion on plates, this fault is due either to allowing the coated plate to set upon a table that is not level, or else the glass is thicker at one edge than the other. In large plates especially the coating will be found of different thicknesses, caused by undulations in the surface of the glass. The addition of alcohol was supposed to control the flow of emulsion, but I have not found its use to regulate the coating to a uniform thickness on such glass. You can easily imagine a larger quantity of emulsion flowing into the hollows of the glass, leaving the higher portions thinner, and in consequence, more transparent in the finished negative. In using plates with thin edges, I would apply the same rule as for plates with drying marks. A little observation will enable one by looking through them to place the plates in the slide to suit the subject. The best artistic effects can be produced by allowing the thin part of the plates to receive that portion of figure or background which you want subdued. Supposing the picture to be made is of a lady with very light dress, it is needless to point out where the thin end of the plate should be. In some cases these plates are a decided advantage, though for copying purposes or anything needing an even film they are to be discarded.

One great source of trouble—frilling—I am happy to say we do not meet with so frequently now. Most commercial plates are

treated with a substratum and dried before being coated with emulsion, this secures great freedom from this plague. However, it does occur, and when not too far gone, I would advise to wash a little and then lay the plate in alum solution for ten minutes; this prevents it going further. After this wash well, and especially under the frilled part as much as possible; then plunge the plate while still wet into methylated spirit, and it will contract to its original size. If the plate has been thoroughly washed, no trace of frilling marks will be seen. If not well washed, a scum will be formed by the alcohol under the film, which nothing will remove after it is dry.

Blisters are another form of frilling, caused in most cases by a too long immersion in strong hypo. Sometimes they entirely disappear upon drying, but if not, the application of alcohol to shrink the film may remove them. Should the blisters dry opaque, thoroughly wet the film again and dry spontaneously; by repeating this several times the marks will be obliterated.

In aggravated cases, where one is threatened with the loss of the whole film, I would recommend the plan adapted by Mr. A. L. Henderson. The plate is washed as much as possible, alumed and washed again, and placed in a tray of water in which a few drops of hydrofluoric acid are added; this brings the film quite free from the glass. Now wash well, and gently slip a larger piece of glass under the floating film, raising both from the water and keeping free from air bells. By this time you will have the film much larger. Subsequent treatment with alcohol brings it back to its original size. This will seem troublesome, but what are we to do where no opportunity is found of taking another plate?

Pink, red, and green fog are much the same thing, only in different stages, and may easily be caused by forced or prolonged development. The unhealthy look of these negatives is all that condemns them; prints from such have more sparkle and richness of shadow than from negatives quite clear. A great deal has been written on green fog, but no satisfactory solution is to the fore as yet. A plate showing strongly of

green fog can be cleared by allowing it to stay a long time in the hypo; but the remedy is worse than the disease, as it turns the plate to a sickly brown color. Surface fog or veiling may be put down to the emulsion. Either it has had a touch of light, or been heated too long in the manufacture, or has been prepared with an excess of silver. At times the coating on the plates is so thin as to lead one to think the shadows were veiling during development. Plates so coated need scientific development to produce good results.

As to development, much diversity of opinion exists in regard to this, and every one has his own pet formula. Suffice it to say that as much science, or art if you will, pertains to this stage of making a good negative, as at any other. In old days, for overexposure double the pyro was recommended. Now I do not agree with this, quite the reverse; by using a weaker all-around developer, you have the plate more under control, and can keep back the shadows until the high lights attain sufficient density to insure good gradation. Of course the development is very slow, but so much the better; the shadows while developing keeping quite clear, having an underexposed look, but you are all right, go on. Just here let me make a suggestion (not a new one), that it is a good plan to have a small aperture giving more light in one side of the lamp or window. This can be uncovered so that you may judge of the density by the transmitted light, and if you think more detail desirable, wash under the tap, and apply a normal developer.

Having had considerable experience in plate-making, I find it is absolutely impossible to get clear shadows in the quickest plates without careful development. Rapidity in plates means a close approximation to decomposition of the gelatine, either by heat or by ammonia. A plan has often been suggested to look at the back of the plate to judge of development, but your subject and plate will have a great deal to do with how much or how little you see of the image, as with some coatings you cannot judge of density by this means. Slow plates do not require so much care in development, as more latitude in exposure is allowable.

These remarks do not apply to rapid or slow plates that have been very much over- or underexposed. All that can be done here is to do your utmost to insure something passable.

I would strongly protest against using the most rapid plates for pure and simple landscape. By the use of moderately quick plates, you will all agree with me that better results can be obtained.

A good plan of reducing a negative when certain that it will be too strong after fixing and clearing, is to flow, before *fixing*, with the clearing solution of alum and citric acid. This must be done with great caution, otherwise the reduction will be excessive. It gives us more reduction than if done after fixation, and insures a good printing color.

The intensification of a negative I have never been very successful with, always preferring to make another when possible. Great care must be exercised in washing, clearing, and again washing before applying the mercury (if such a plan is adopted), as yellow stains are apt to follow with the subsequent treatment of ammonia. Other modes are in vogue, but I cannot say anything on them from lack of experience.

I am afraid I have made some digression from the original subject, but let this be my excuse, that the use of gelatine plates, in fact everything pertaining to our art, is so full of interest to professional, amateur, or experimenter, that one is led on from subject to subject, always striving for the best, and leaving nothing unturned until that is attained.—*Transactions of the Edinburgh Photographic Society.*

WEIGHTS AND MEASURES.

BY JOSEPH DORELLA.

SINCE I came to America, now two years ago, I have been often anxious to ask the question, "Why is not the metrical system used in the practice of photography in America?"

I travelled a great deal over the old country, and, with the exception of a few places, I found everywhere the metrical weights. As I am acquainted with several languages, I like to read periodicals of several nations,

and I found it easy to work after the formulas they contain. Everybody knows that the European periodicals, books, year-books, etc., about photography, use the metrical system in writing formulas, etc.

If I went from Italy to Germany, and I did not know the German name of carbonate of soda, I could go to a pharmacy (drug store) and write on a piece of paper

"Na₂CO₃ 50 gr.,"

and they would give me, without mistake, fifty grammes of carbonate of soda.

I arrived in New York from Europe the 1st of January, 1884, and the next day I wished to buy some soda. I had to walk a long distance before I could find a drug store where the symbol was understood. It may be because I did not write the 10 molecules of H₂O which belong to the symbol, if the salt is in crystal. I found a store where the symbol was known, but the bulk given to me was not to my satisfaction. I could not speak much, and it was impossible to come to a conclusion. I can tell now that they gave me fifty grains, instead of grammes.

When I went to work here, I believed I could work with the same formulas and the same proportions as in Europe. I had to fix up some developer, and I was astonished in looking at the weight box. I asked my principal what kind of weights they were, and he said, "The only ones I have." He showed me the formulas written in ounces, drachms, and grains, all things which were a little in my mind as learned at school, but never used in practice. Next day I brought with me weights and measures which I had in Europe, and I could work with my formulas. I did not know the ounce, and he knew nothing about the grammes.

After several nights I had all my grammes and centimetres converted into grains and ounces and *vice versa*. Truly said, it is troublesome to make such calculations, apart from the loss of time, and the annoyance of having three different kinds of weights always at hand. Sometimes I had to ask, "How many ounces are there in a pound?" One answered, "Twelve ounces," and another said, "No, sir; there are sixteen ounces in a pound." Both were right, but I could not understand the difference. If I get a one-

ounce bottle of bromide of potassium from the stock-house, and make the following calculation,

1 ounce, 480 grains = 30 grammes nearly

(I learned that the Troy or also apothecary weights are used in the photographic pharmacy), it is all right; it is not necessary to weigh it. I have all ready, just alike, my formula:

KBr	.	.	.	.	30 grammes.
AgNO ₃	.	.	.	.	35 "
Gelatine	.	.	.	.	25 "
Aq. des.	.	.	.	.	200 "

and so far to mix up a little batch of emulsion. If, after having mixed and finished, I began to wonder because I did not get the result I usually got, somebody would say I was crazy when I was weighing the chemicals. But I suppose that not Europeans alone, but plenty of Americans, too (and I have proofs on hand), do not know that the ounce bottle of KBr I got at the stockhouse did not represent 480 grains one ounce Troy, but a commercial ounce—437½ grains—which makes only 28.3 grammes, instead of 30, as I had supposed. The difference was because the emulsion did not contain 5.50 of bromide, but only 3.80.

In the most of the formulas for developer I read, "Dissolve one ounce of pyro in three ounces of water." Now I take a one-ounce bottle of pyro (one ounce commercial) and put in the water to dissolve the pyro; but if I have a pound of pyro, I take one ounce of my weight box and weigh so much pyro and dissolve. Now what kind of ounce is meant in the formulas—the ounce of the bottle (437½ grains), or the ounce of the box (480 grains)?

In the hands of an experienced operator or a scientific amateur, it would not make much difference, as his experience teaches him what he has to do. But what kind of a result would it give to a beginner, or to the unlearned operator, those two different kinds of ounces? But if it is written in the formulas one part of pyro to ten parts of water, I believe that no errors can be committed.

Would it not be possible to have in photography the metrical system? Would it not be better and easier for the amateur and the

professional to have only one kind of weights and measures? Is it possible that this matter will be discussed, and so have in the American formulas all the same kind of weights as our colleges in Europe?

I am not able to write English well, nor discuss the matter intelligently, owing to my imperfect command of your language, but if some of the craft, more competent to write would bring it before the fraternity, I am of the opinion that good will result from it.

LExINGTON, KY.

[Our correspondent might possibly find his answer on page 44 of our issue for January 16, yet we give him a hearing lest we be unfair.—Ed.]

THE OPEN CORNER.

AN Irish physician, Dr. Henry Macaulay, has made the unique suggestion that the intense heat of the sun in tropical countries be used as an agent for cooling buildings. He would use Muchot's sun-engine for pumping cold air into factories, dwellings, etc., as in this way the temperature of the rooms may be reduced from 100° to 60°. This plan is available only where ice may be obtained. This would be a good scheme for dry-plate factories.

THE amateur *versus* the adept. Some time ago a working photographer from Dakota called upon us. We asked him if he found his business disturbed any by amateurs, whereupon he told the following: "An amateur came out to our city and called upon me. I offered him the courtesies of my dark-room. The next day he brought me plates to develop, among them an excellent interior of the parlor of one of my best patrons. I made him a few prints to 'give' to my patron, and the amateur went away. A week or two after the lady applied to me for other views of her 'palace.' I stated my usual reasonable price for such efforts whereupon she held up her ringed hands in unholy horror, declaring that my 'prices were too exorbitant,' etc. She had been filled by our obliging amateur friend with all sorts of stories of 'the little cost of photographs,' and thus my chances were reduced by his over exposure of the private

matters of the craft. That's the kind of hurt they do—innocently, perhaps—but still they hurt. Could you not through your magazine persuade them to act more thoughtfully and considerately? If they 'do not wish to make any money out of photography' why do they want, thoughtlessly or otherwise, to spoil the chances of us poor dev-elo-pers?"

There is reason in the argument of the gentleman from Dakota, and as the season approaches we trust our good-hearted amateurs will remember that the pleasure they derive from our art, should at least induce them to uphold it and to help those who must live by it.

THE Syndical Chamber of Photography, at its meeting of February 9th, had a lengthy discussion in regard to the monopolies granted by the administration of the fine arts to different photographic houses. It is an error, said many of the members, to say, as has been published in numerous journals, that this monopoly does not exist, since the old regulations are maintained, and that any photographer may, as in the past, reproduce the pictures in the Louvre. This is true, but what the papers do not say is, that none except the privileged house is authorized to unhang the pictures to place them in a suitable light; that none can work in a special atelier in the Louvre itself, when both of these privileges belong to one house, which has obtained these rights by virtue of a treaty made with the government.

The question of the selling price accepted by the administration, was also the object of serious attention. It is not easy to understand what advantage there is for the public, or for the administration itself in such high prices. The Syndical Chamber of Photography does not seem disposed to abandon this affair, of so much importance to photographers, and proposes to protest against all monopolies, either granted or to be granted.—LEON VIDAL.

WHAT BECOMES OF A RAY OF LIGHT?—Among the most curious, and perhaps the most false, of scientific reveries, is a paper of Mr. W. J. Harrison, recently published, in which the author seeks to understand

what becomes of a ray of light, starting from the earth's surface to travel in the infinite celestial space, with a velocity of more than 60,000 leagues per second. The author expresses the opinion that everything that takes place on the earth, or elsewhere, is registered by the luminous rays which escape under the form of vibrations, or undulations, and unceasingly pervade all space. If, says he, we could precede these rays and place ourselves in regions infinitely far from the universe, to receive them as they arrive, we would see successively the history of humanity, from its origin, unroll itself before our eyes. Or, if we could follow up these vibrations, or undulations, reflected from the surface of the earth, we would see successively each phenomenon, each historical fact, depicted before our eyes as soon as we arrive at the corresponding undulation. In this case, the physical and the historical phenomena would unroll themselves for us in inverse order.

The theory of the author, that light thus forms an imperishable register of all that occurs in the world, and all that has occurred on the world, appears to us to be erroneous, on account of the fact known under the name of interference, in which the vibrations having different lengths of waves mutually destroy each other to produce obscurity.—*Paris Moniteur*.

THE QUESTION OF PAPER FOR NEGATIVES.—This question continues to occupy much attention here. After plain paper, of rather ordinary quality, came strong paper of superior quality; and, finally, paper strengthened by means of chloride of zinc has been proposed. Now some operators, having proposed emulsioned cardboard to take the place of the glass plate (the weight of which is so inconvenient for tourists), it has been shown that many of these boards are sufficiently porous to allow the light to penetrate to the sensitive film so as to give prints striated or spotted in divers ways. Finally, a correspondent, who desires to remain anonymous, proposes the use of very thin iron plates, or the well-known ferrotype plates, which, it is said, are much superior to cardboard for supporting the sensitive emulsion, and are not much heavier. But

the transfer of the film for printing will always prove a serious obstacle to the use of these opaque supports; and it seems to us that it would be more logical to endeavor to perfect a negative paper which can be rendered transparent, and handled in the same manner as a plate of glass. In connection with this subject, let us note that Mr. Briginston, member of the London Photographic Association, has just examined the way in which paper behaves with gelatine emulsion in regard to keeping. He had kept some samples for more than three years, and some of them were developed in the presence of the members at the meeting of the Society mentioned above. No spots, nor striæ, nor any other defects were observed. Some experiments that have been recently made tend to prove that when paper and a glass plate have been coated with the same emulsion of bromized gelatine, the film on the paper shows a sensibility twice as great as that on the glass plate. This fact has not yet been well explained. It shows that everything is still new with regard to negative emulsioned paper.—**DR. PHIPSON.**

A PROCESS FOR PRINTING WITH FATTY INKS.

I HAVE the honor to present to the French Photographic Society a process for printing with fatty inks (phototypy), possessing all the desirable qualities in facility of preparation and the results obtained. Here is concisely my mode of operation.

I carefully clean two polished plates, absolutely plain, and I prepare the two following solutions:

First Solution.

Gelatine	50 parts.
Distilled water	700 "
Bichromate of ammonia	10 "
Bichromate of potash	15 "

Filter through a fine cloth or flannel.

Second Solution,

Natural caoutchouc to saturation in crystallizable benzene.

Filter with the greatest care.

I place my two plates upon stands furnished with adjusting screws, and pour upon one a very even coat of caoutchouc varnish, and then lay it aside, away from the dust.

I coat the other over with ox gall, and dry with gentle heat in a specially arranged stove. As soon as the gall is dry, which is not long, I pour over it the gelatine solution, which should be dried at a temperature of from 30° to 40° C. (86° to 104° Fahr.)

When the gelatine film is dry, I cut it with a penknife close to the edge, and the pellicle readily leaves the glass; the side which had adhered to the glass is a brilliant enamel; it is this side which is to be placed in contact with the negative and exposed in an ordinary pressure frame. After impression, I place my gelatine pellicle upon the plate covered with caoutchouc, the brilliant side uppermost, the side which has received the image, and this brilliancy preserves all its delicacy and without dust spots. By means of a wooden roller, or a glass one covered with caoutchouc, I cause it to adhere intimately to the plate, and this so strongly that it is impossible to use the plates a second time.

I plunge the whole into a basin of cold water, which I frequently renew, and I continue inking and printing by the ordinary methods.

Reversing the Negatives.

For gelatine negatives I have always used the following method, which has been uniformly successful:

After washing the negative in alcohol, I allow it to dry, and cut it near the edge with a penknife. I raise one corner and remove the pellicle without injury to it, since there has been no wetting. Considerable care must be taken.—M. CANNEVEL, of Rouen, in *Paris Moniteur*.

THE HUMOR OF IT.

A MERRY young miss in Detroit
One day tried a photo-exploit;
She "took" a man's word,
Exposed what she heard—
What a frilling in Detroit
then occurred!

A SKELETON was unearthed in Oshkosh last week with a ferrotype of himself(?) clutched in one hand.—*Chicago Ledger*. Doubtless one of Chicago's "cheap Johns,"

who had tried to run his own face "on the other side."

ANNALS OF A QUIET NEIGHBORHOOD.—(The fancy bazaar in aid of the schools.) Fair stranger (to dean's wife, who is driving a lively trade with photographs of her husband)—"A—um—a—what would be the price of the frame—a—without the portrait?"—*Punch*.

LOOKS LIKE POETRY, BUT ISN'T.—A New York photographer received something like the following a few days ago:

Mr. —, herewith my photographs
If you please, alter as follows, do
Not understand, I'm pleased,
Don't you see, with
Any of the proofs; if you can fix
Now up the left side of my face so it
Don't have such a swelled,
Gory appearance, and if you can
Open my eyes more. My face,
Too, looks though you had pulled it
Out of a whitewash pail and left
Streaks all over; and please alter
The nose, so it won't look so crooked;
Let the hair be all dark, specially
Over the temples, and wipe out that spot
Under the left corner of my tie.
If agreeable, don't alter my collar;
Style of coat unchanged. Adew.

A good piece of advice is involved in the downward marginal letters, any way.
"Mind."

HE—How lovely Miss De Lancy looks; she reminds me of an old picture. Rival beauty—Yes, a very old picture and restored.

A LITTLE SQUAD OF PRINTERS in New Haven were photographed some months ago, and since then some one of them has been sick constantly. The incessant illness led some of the party to attribute it to the picture, which, it was found, contained just thirteen figures. As soon as it became known that the party contained that fateful number, the increase of illness was marked, and to-day four or five of the party are off duty, while the remainder are going about kicking themselves and shaking with fear over what may happen.—*New Haven Register*.

PHOTOGRAPHING THE ECLIPSE OF THE SUN,

MARCH 5, 1886.

So rare, for certain determined localities, are total or annular eclipses of the sun, that there is no point on the earth at which they have been seen twice in the same generation.

Taking for this purpose some curious data from the pamphlet published by José A. Bonilla, Professor at the Observatory of Zacatecas, in January, 1884, predicting the annular eclipse of the sun which was witnessed on the 5th of March last, we will see that in the zone in which Aquascalientes is comprised there has been no total or annular eclipse of the sun since the discovery of the new world. In Paris the last total eclipse occurred on the 22d of May, 1724, and there will be no other for the Parisians before the year 2026. In London a total eclipse was seen in 1715, but there will be no other until 2090.

But this does not apply to eclipses of the sun for the terrestrial globe; quite the contrary, they are more frequent than those of the moon, and the fact is that lunar eclipses are always visible in all the terrestrial hemisphere which is turned toward the satellite, whilst in the eclipses of the sun the conical shadow projected by the moon coming between the central body of our planetary system and the earth only extends over a very narrow zone. Moreover, in general, total eclipses are more rare than annular ones, and a day will arrive in which the first will no longer occur. This arises from the fact that our satellite is gradually receding from the terrestrial globe, whilst at the same time the motion of rotation on its axis of this last is becoming slower.

How admirable is science? As soon as Newton discovered that the motions of the stars were subject to the invariable laws of mechanics, man already could no longer be ignorant of the veritable destiny of this his transitory habitation.

The harmonious march presented everywhere by the grand phenomena of nature, has permitted us to assist at the creation of worlds distant millions and millions of miles from us; and thus we see by the aid of a telescope the nebula becoming a nucleus

each day more dense (as in the case of the constellation the Dragon) until it becomes a star, and then commence to scatter its matter in fiery showers until it loses itself, confounded in the cosmos from which it originated.

Thus it happens with the moon, whose surface, visible to our eyes, presents in its thousand extinct volcanoes all the signs of death and desolation.

We have here a scientific law of universal evolution, the integration and the disintegration of matter.

In regard to our globe, we have said that its motion of rotation is gradually becoming slower and a day will arrive in which one side only will be turned toward the moon, in which the days will then be of 1400 hours for those who inhabit it.

The rarity of the phenomena made us expect its coming for many days with much anxiety. Although neither in the calculations of the Central Observatory of Mexico, nor in those of Senor Bonilla, of Zacatecas, nor in any other, had we seen anything relative to our locality. Availing myself of these works, I made an approximate calculation of the phases which would be presented to us and made preparations for taking some data, although imperfect, since we have not at our command suitable apparatus for the very delicate observations required by modern science.

Thereupon I conceived the idea of making a photograph of the phenomenon, knowing the grand results given by the application of photography to total eclipses.

The first attempts to introduce photographic processes in astronomy, are owing to Berkowsky who, aided by the celebrated astronomer Bessel, took, in the Observatory of Königsberg, a daguerrotype of the total eclipse of 1851. The protuberances, those magnificent cataracts of fire thrown from the opaque disk of the sun presented admirable images.

In 1860, Warren de la Rue, the celebrated author of the "Unity of the Physical Forces," and Father Secchi undertook an expedition to Rivabellosa for the purpose of taking an image in the camera of the total eclipse which was to occur at that place.

A complete success crowned this interesting work.

In 1868, Germany, England, and France, sent scientists to make ocular and photographic observations of a total eclipse visible in India and Arabia. All were not successful on account of the cloudy weather; but those taken in India and at Aden are remarkable, not only for the beauty of their execution, but also because they proved themselves to be the most efficacious medium to resolve definitely the difficult question relating to the nature of the protuberances.

The narration of the great difficulties encountered by the expedition which went to Aden, whose photographic work was intrusted to Dr. H. Vogel,* is the best proof of the labor taken by man in his daily conquest over nature.

The knowledge of all these difficulties had troubled us more and more when we made our previous experiments.

In the first place we had no photographic telescope, not only to obtain an image sufficiently enlarged, if not to reduce the original field of observation as is required in photographs of precision. We thought that taking the photograph by means of collodion, as is generally done, would be useless; the time of exposure is in seconds, and the heavenly bodies move. To use this process it is necessary to provide the camera with a clockwork arrangement, to regulate as to follow with mathematical accuracy the motion of the body under observation.

We had no other course than to use gelatino-bromide plates to obtain an instantaneous exposure. But here innumerable difficulties presented themselves.

Gelatino-bromide on account of its rapidity is so sensitive that it is sufficient for an invisible ray of light to be introduced to the camera for the plate to become completely fogged; and I have observed that in photographs of landscapes, when the sun is in front, a fog is invariably produced.

To prepare special dry plates was not possible as that required time and we had

none to lose, and, moreover, if they were not extra sensitive we again encountered the difficulty of an exposure measured by seconds.

Then I commenced to experiment with the ordinary gelatino-bromized plates prepared by our friend Senor Antonio Chavez in his excellent photographic establishment, and without any other apparatus than that used in ordinary photographic work. Provided with a lens of short focus, but deep, I caused a mirror to reflect the image of the sun, and with an instantaneous stop I made an exposure. On developing I found that a dense fog covered the plate, and in the centre a blurred and smoky spot appeared. All experiments in that direction were useless.

Armed with patience I commenced to make new experiments, diminishing the sensitiveness of the gelatino-bromide, using for the purpose iodine and bromine, etc., all in a free state, and low forms of acid solution; the result was that a long exposure was required, and the images lacked sharpness in the outlines and the details. The night of the 4th arrived and we had made no step in advance in the practical ground of our experiments. Now, almost discouraged, I took another course and instead of diminishing the sensitiveness of the gelatino-bromide, I raised it to its maximum by immersing the plates in a solution of carbonate of ammonia. I had conceived the idea of making an application to photography of the celebrated experiment of J. T. Tyndall, to prove what is an illuminated surface. On the morning of the 5th I turned directly to the sun the camera provided with a single lens, of deep focus, and diaphragmed in the following manner: before the lens, in the same place in which is found the diaphragm of the ordinary landscape lens, was introduced a metal plate perforated in the centre by a very fine needle. An extremely attenuated ray of light penetrated into the camera and passing through the exact centre of the lens, formed the image of the sun on the screen perfectly sharp and free from the diffused rays of light.

The two experiments that were made in this way gave us a slightly fogged image of

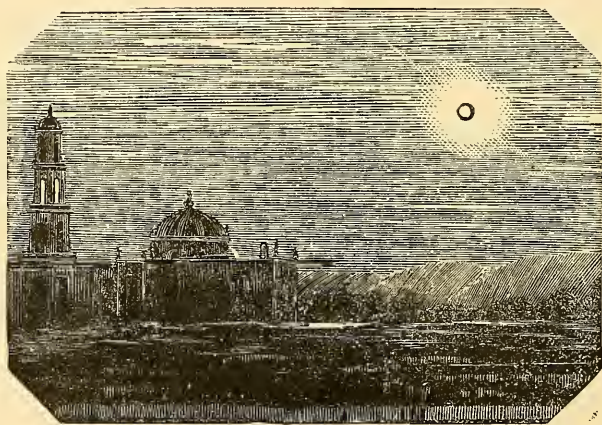
* Published in the PHILADELPHIA PHOTOGRAPHER at the time.

the sun. But, calculating upon the slight activity of the afternoon light, and its natural diminution by the interposition of the moon (the lunar disk intercepting 0.93 of the diameter of the sun, or 11 degrees 16 minutes) and now, more encouraged, I finally undertook the decisive experiment.

Aided by our colleagues Drs. Gomez Portugal and Diaz de Leon, we waited for the precise time at which we had calculated the commencement of the phenomenon; the first provided with a clock regulated for the meridian of Aquascalientes, and the second intrusted with the telescopic observation.

of photography to that class of phenomena without special apparatus and within the reach of all photographers.

To-day the use of gelatine dry plates is so common even among amateurs, that we have thought it advisable to make known a process that we have not met with in any of the works that treat of the matter, even the most recent, and the knowledge of which, we feel sure, will prove useful to the generality of the meteorological and astronomical observatories which do not possess special apparatus for this class of work. The instantaneousness, the precision, which we have obtained by so simple a means in-



ECLIPSE OF MARCH 5TH. From an instantaneous photograph taken by Senor J. Herran.

The result of these observations is as follows:

First outer contact,	3 H. 53 m. 19 s.
First inner contact,	5 H. 13 m. 38 s.
Second inner contact,	5 H. 15 m. 23 s.
Second outer contact,	invisible.

Of all these phases we made photographs, some of which, however, were spoiled by an unexpected accident which happened to one of the cameras in use. As a specimen of these photographic prints I publish with this sketch a cut of the eclipse showing its annular phase, being an exact copy of the photograph taken at 5 h. 14 m. 31 s., calculated on the meridian which passes through the scientific institute of this capital.

The imperfections of our astronomical observations do not permit these last to be mentioned, but we have here an application

duced us to make some photographic prints of the solar disk, which by enlargement show very clearly the spots of its photosphere.

As is seen in the above cut the image of the sun is solarized, a phenomenon that Janssen observed long ago, according to Dr. Eder, operating for the first time with gelatino-bromide and which is very difficult to avoid, since, according to the above experimenter, an exposure of one twenty thousandth of a second is required, which is so rapid that no stop, however instantaneous could be effective.

J. HERRAN.

AQUA SCALIENTES, MEXICO.
March 18, 1886.

In a notice of his work, our types made Mr. A. B. BUELL reside at Chautauqua, N. Y., instead of at Chateau Gay (gay castle), New York.

CORRESPONDENCE.

HENDERSON, N. C., March 17, 1886.

MR. E. L. WILSON.

DEAR FRIEND: And why do I call you friend? Because in the shape of a genuine help you stand, through the PHOTOGRAPHER, preëminent. I hail your semi-monthly visits with more eagerness than I could a fine subject with a fat purse. How ever did without you I don't know.

My object in writing is to get some advice as to how to proceed about organizing our North Carolina photographers. As yet we are getting a fair price for our work (\$6 for albums and \$3 for cards), but the dreaded foe is creeping in upon us with the stealthy step of a thief, and, if something is not done, we must fall. Many people South forget quality of work when cheapness stands before them. Will not an association tend to keep up quality of work and standard prices? And so, how is the best way to effect such an organization? Yours,

GEO. M. NEWELL.

SAINT JOHNS, NEWFOUNDLAND, March 14, 1886.

DEAR SIR: I herewith enclose P. O. order for six dollars and fifty cents, for which please send me the PHILADELPHIA PHOTOGRAPHER, commencing with the January number. Being an old subscriber, and as long as I am in the business photographic, as long as the PHILADELPHIA PHOTOGRAPHER is published, I have no desire to be considered other than among its warmest well-wishers and supporters. I am clean out of the photographic world without the PHILADELPHIA PHOTOGRAPHER, and it is just as well for me to commence making cabinets for three dollars per dozen, instead of eight (which I get), as to be without it. I have been using dry plates exclusively for the past two years, and handed over my plates to the ferrotype department (for we still make the much-abused ferro—but have a skylight solely devoted to that work in another part of the building). I have read of troubles innumerable with dry plate workers, but I cannot say I have been troubled very much; on the whole, I have been very successful, both in portraits and views. I was out last summer about 100 miles from home. I exposed about nine

dozen plates, and the only failure was one I attempted to put two views on. Now any photographer would think that this was an absolute impossibility—that is, to make anything of it; but in this case it turned out to be one of the finest mirage effects possible, and those accustomed to a genuine Newfoundland fog could appreciate it. The two views were so totally opposed in character that they grafted in a most surprising manner. Unfortunately before we could get off more than two or three copies the negative was accidentally broken. I use ordinary rapidity for view work, except instantaneous, but use the extra rapid altogether for portrait work.

I am "waiting and watching" with a great deal of interest Eastman's negative paper, and as soon as I am convinced that it makes negatives equal to those I have made upon glass, will immediately adopt it into my business.

I think now that I have had quite a talk; I will simmer down, which, I think, I ought to have done some time ago. I was near forgetting to ask you to send me *Mosaics* and a sample copy of your "talk about prices." Fraternal yours, etc

S. H. PARSONS.

MR. EDWARD L. WILSON.

DEAR SIR: Accompanying this letter is a copy of "*El Instructor*," a periodical published in this city, for the purpose of spreading scientific knowledge in all special classes.

In No. 22, which I have the honor to send you, you will find an article styled "An Eclipse of the Sun, on March 5, 1886," in which you will see that there is a question of matters pertaining to our profession.*

If you find in this process for reproducing the sun in so simple and original a manner, the interest that I do, I hope that you will publish it in your magnificent periodical, THE PHILADELPHIA PHOTOGRAPHER, so that it may become generally known.

In place of the metal stop one of black or red paper may be used to produce the same effect.

By the same process Mr. Harran and I

* See page 240.

have made aerial photographs of the crepusculum, in which the sun appears between colored clouds so beautiful and so perfect that I cannot do otherwise than recommend you to make the trial.

It is very beautiful to see how each day gelatino-bromide extends its action to all classes of application, and I see with great pleasure everything pertaining to the art appears in your interesting journal.

I have the greatest satisfaction in seizing this opportunity to place myself at your command as your most obedient and humble servant.

ANTONIO CHAVEZ.

AQUA SCALIENTES, March 15, 1886.

OBITUARY.

JOSEPH WILLIAM BATES.

WE regret to announce the death of one of the oldest amateurs of our country, Mr. Joseph William Bates, of Philadelphia, at his residence in that city, on Saturday, March 27th.

Mr. Bates was for several years the President of the Photographic Society of Philadelphia, and one of its oldest members. He was also, at the time of his death, a Director of the Commercial Bank, a position which he held for twenty-nine years. He was a member of the Board of Directors of the Academy of the Fine Arts, a member of the Fairmount Park Art Association, a member of the Board of Trade, a member of the St. George's Society, and a member of Franklin Lodge, F. & A. M.

Mr. Bates came to America in one of the first steamships of the Cunard line. Since then he had made just forty trips to the old country, and always by the same line.

He owned one of the largest collections of lantern slides in the world, and was a good photographer. Moreover, he was a genial, kind-hearted man, and universally beloved. Our art has to deplore the loss of an active, warm, and hearty friend.

THE HENRY DRAPER MEMORIAL.

HARVARD College Observatory has undertaken to carry out the great astronomical enterprise of the photographic study and

classification of stars inaugurated by Prof. Henry Draper. The following circular which we have received from Prof. Edward C. Pickering, director of this observatory, explains the plan. The prosecution of Prof. Draper's work at Harvard is designed as a memorial to Prof. Draper:

The study of stellar spectra by means of photography was one of the most important investigations undertaken by the late Prof. Henry Draper. He was actively engaged in this research during the last years of his life. His plans included an extensive investigation, one object of which was to catalogue and classify the stars by their spectra. Mrs. Henry Draper has made provision at the Observatory of Harvard College for continuing these researches, as a memorial to her husband. The results already obtained, with the aid of an appropriation from the Bache fund, permit the form of the new investigation to be definitely stated. The part of the sky to be surveyed is that extending from the North pole to the parallel of thirty degrees south declination. Each photograph will be exposed for about one hour, and will include a region ten degrees square. The telescope employed has an aperture of 20 centimetres (eight inches) and a focal length of 117 centimetres (forty-four inches). The object glass is covered by a prism, and the resulting spectrum of each star in the region photographed has a length of about one centimetre, which enables the character of the spectra of stars from the fifth to the eighth magnitude to be determined. A modification of the apparatus is employed for the brighter stars.

Meanwhile experiments are in progress with the fifteen-inch equatorial with the object of representing the spectra of some typical stars upon a large scale. The spectra so far obtained are about six centimetres in length, and exhibit much well defined detail. Additional experiments will be tried with spectroscopes provided with a slit, as well as with the simple prism hitherto employed in order to secure the best possible definition. The present results encourage the expectation that the movements of stars in the line of sight may be better determined by the photographic method than by direct observations.

To keep the astronomical public informed of the progress made in this work, specimens of the photographs obtained will be gratuitously distributed from time to time. The first of these distributions will probably be made in a few weeks. Owing to the expense of providing a large number of copies, it is desirable to limit the distribution, so far as possible, to those who are interested in this class of work. It is also desired, however, to send the specimens to all who will find them of value from the scientific point of view. A blank form of request is attached to the present circular, and may be filled out and sent to the Harvard College Observatory by any one desirous of receiving the specimens; but requests to the same effect in any form which may be convenient will also be cheerfully complied with so far as may prove practicable.

EDWARD C. PICKERING,

Director of Harvard College Observatory.

CAMBRIDGE, U. S., March 20, 1886.

SOCIETY GOSSIP.

THE PHOTOGRAPHERS AT MARLBORO, MASS.—We the undersigned photographers agree to the following list of prices:

Panel Cards, per doz.....	\$6 00
“ “ “ ½ “	3 50
Cabinets per doz.....	5 00
“ “ “ ½ “	3 00
Cartes de viste “ ½ “	2 00
“ “ “ ½ “ 8 x 10 inches	\$2 50 to \$4 00
Duplicates, each.....	1 00
5 x 7 Tintype.....	75
Two Cabinet Tintypes.....	75
One “ Tintype.....	50
Four Card Tintypes.....	75
“ “ “ of Baby....	1 00

All duplicate orders on panel cabinet and cards, \$1.00 less than the above prices.

Photographs finished from more than one negative will be 50 cents extra.

M. H. ALBEE.

A. S. MCKENNEY.

WM. F. KUHN.

We hope others will take the march upward also.

PROVIDENCE, R. I., AMATEUR PHOTOGRAPHIC ASSOCIATION.—A meeting was held March 6th, and the following officers elected:

President.—W. T. Burrow, Box 104 Saylesville, R. I.

Vice-President.—Stephen Waterman, 72 Meeting Street.

Secretary.—R. W. Taft, 79 Waterman St.

Treasurer.—E. A. Barrows, 38 Olive St.

Librarian.—F. L. Hinckley, 89 Waterman St.

Mr. Earle, of W. H. Walmsley & Co., Philadelphia, was present and showed the “Beck” lenses, etc. After a vote of thanks to Mr. Earle, the meeting adjourned.

R. W. TAFT,

Secretary.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.—The March 9th session of this Association was an interesting one, and being largely conversational, the stenographic report would fill the whole of our current issue. We have room for a synopsis only. The annual meeting was announced for April 13th.

The Board of Directors have been looking for new and better quarters for the Society, and have in contemplation two or three desirable locations. The object of the Board is to raise the money in advance to fit up the new quarters, without in any way putting the Society in debt. The meeting was assured that the Board appreciates the responsibility of providing these facilities for the Society, and it will be their endeavor to spend the money raised as economically as possible.

The communication of the Belgian Photographic Association in the matter of an International Congress, was read, but no action taken.

A communication was read from the London Camera Club with reference to exchange of lantern slides.

It was reported that at a meeting of the Board of Directors, Messrs. George H. Fox and Daniel P. Read were elected Active Members; James S. Hood, an Associate Member; and Mr. Joseph P. Beach, a Corresponding Member.

At the same meeting, Mr. C. W. Can-

field's resignation as Corresponding Secretary, was accepted, and Mr. R. A. C. Smith was elected Corresponding Secretary. Mr. Cantfield was given a vote of thanks, the members standing. He has been a worthy and faithful officer.

An improved snap-shutter was exhibited, the invention of Messrs. Samuel W. Geery, Francis W. Jackson, and Charles B. Day. It is so contrived as to give the centre of the lens the longest exposure.

Some prints were shown from Mr. W. J. Stillman, to illustrate landscape composition.

A letter was read from Mr. F. York, of London, accompanied by some lantern slides.

A long discussion followed on the status of the American amateur photographer, started by a quotation from Mr. York's recent address before the London Photographic Society, as follows:

"American amateur photographers are not amateurs in our acceptance of the term. They will receive payment for work; hence the objection of the trade in refusing to deal with firms supplying amateur outfits. An enthusiastic amateur, the President of a society, told me that this trading element amongst amateurs was so contrary to the spirit of a real love of photography, that he once suggested that this stigma was a slur upon the society, and he proposed that the condition of membership should be a declaration that it was pursued purely from pleasure, and not from a mercenary point. The result was that two-thirds of the members left the society."

The President concluded the debate by saying: I feel sorry, for one, that Mr. York, who has been so kind to us, should have been led into the idea of giving American amateurs such a low estimate, and must believe that his observation of them was very limited. It shall be my aim to maintain a high standard in this society, and I trust I shall have the united support of all the members.

A long discussion now followed on the proper development of the plate, in which Messrs. Newton, Roosevelt, Beach, Ripley, Spaulding, and others took part.

In answer to the query: "How long does

it take to develop an under-exposed plate?" Mr. Ripley answered: Well, if you want to make pictures out of under-exposed plates, the time must not be a consideration. If you expect to hurry a thing of that sort, and then get good results, you will be disappointed; at least, such has been my experience.

Mr. Roosevelt: I would like to ask Mr. Ripley whether bromide has the same effect as the increase of pyro, or whether the use of the pyro is better than the increase of bromide.

Mr. Ripley: It is hard to lay down a "hard and fast" rule, because there are no two men that can develop a plate in the same way. I myself, prefer a large dose of pyro as a restrainer, instead of bromide. Bromide seems to have the effect of choking and stopping, beyond recovery, the development of a plate. You can put bromide enough in the solution to destroy the images. The citrates are not as powerful restrainers; they are more retarders. I know if you have a greatly over-exposed plate, a good dose of citrate of soda or ammonia will stop the development; but by washing off the plate, you can go ahead and get a new image, but with the bromide you cannot. Pyro will answer unless you have a very much over-exposed plate. I personally like best as a restrainer, the bromide in conjunction with the pyro. That seems to give density to a plate that has any exposure at all. You can work on and on safely as long as the plate don't run into a green fog which sometimes occurs.

After a further lengthened discussion, the meeting adjourned.

OUR PICTURE.

To fulfil further our promise, made early in the year, to give our patrons examples of work by the various photo-reproductive processes, we issue as our current embellishment a specimen of the very last discovery in the line, we believe—*i. e.*, by the newest process.

The first to carry photo-engraving to any sort of practical excellence, was Mr. John C. Moss, President of the Moss Engraving Co., of New York. For a long time his results were a mystery to the craft, though

many would-be imitators tried very hard to reach him.

His landscape work, of which we give an example here, with all of its exquisite de-

FIG. 1.



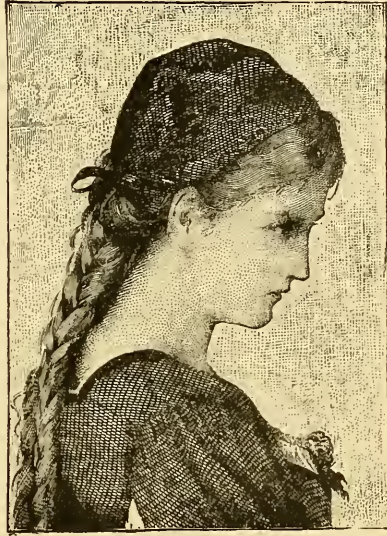
tail and delicate half-tone, was the greatest puzzle of all, though his copies of engravings and line-work far excelled anything that had been done before him.

Portraiture, however, offered still greater difficulties. All the greater was the triumph of Mr. Moss, when he succeeded in producing such beautiful results as this lovely example. Many now followed him with more or less success.

But the artistic inventor was not yet satisfied. He wanted a process for producing engraved plates *direct from photographs*. Assisted by his son, Robert B. Moss, he has invented and perfected such a process, which, without doubt, is destined to be *the process of the future*. It is theoretically and practically correct in all its principles and approaches more nearly to what may be termed an ideal process of engraving—and that in a more direct and positive manner—than any other method now known for the production of relief printing plates. Years ago, Mr. Moss conceived the necessity for such a process, and became convinced that experiment would cease only when it would

be possible to make engravings with the aid of photography directly from nature and without handwork. The obstacles were many and great, but have been fought away

FIG. 2.



one by one, and the result has been secured. The new picture resulting will be known as the "Moss-type."

By this Moss-type method it is possible to reproduce not only photographs, but wash, distemper, stump-crayon, and pencil drawings, as well as mezzo-tint engravings with photographic accuracy. All that is requisite to a good result is to have the drawing prepared so as to be in every respect equal to the desired engraving, and not to show defects in itself which are not desired in the plate. It should be entirely free from unnecessary marks and creases in the paper, which should be perfectly smooth, and the use of an eraser during the making of the drawing should be avoided if possible, so as to leave the surface of the paper in its natural state without "woolliness." Do not use rough egg-shell or water-color paper unless it is desired to represent the grain of the paper in the picture. Drawings may be larger, but no smaller than the proposed engraving. But one color of ink should be used in the preparation of brush drawings. Black ink, and "Chinese" or "flake"

white should not be mixed to produce half half tones. Artists who have prepared drawings to be photographed on wood will understand what is required, although a greater amount of care should be observed in finishing the drawing for the process, as it produces automatically a perfect facsimile. Drawings with vignette edges are not so easily reproduced as those having decided edges or border lines. Photographs in every case should be as nearly perfect as possible, well toned and printed. They may be the same size as the intended engraving, or even larger, if the subject has much detail. In portrait work, especially, care should be taken to have the photograph show as much of the body as will be required in the engraving, as the process will produce a tint corresponding to the photograph, behind and above the body and head. For this reason the background should be as clear and perfect as possible, contrasting in color with the picture.

Last month we used a small specimen "Moss-type" on page 196.

Our present fine example is a reduction from one of our own 8x10 Egyptian negatives, in the production of which only a fair silver print was used and not the negative. While we consider the subject one of the best of our collection, in some respects the "Moss-type" is an improvement upon the original. We consider it a marvel of reproduction. It is practically a permanent photograph, and the inventor of the process which produced it is worthy of the most unqualified commendation.

Such plates, as we have intimated, are for printing in the press with type, and may be used with the greatest ease and convenience.

This is the *best* that has been done. But photo-engraving is also responsible for all grades of work, from this down to the horrible things so common now in the newspapers of the day.

The magazines and illustrated weeklies *could not live* without photo-engraving. It has become an immense business and there are now many photo-engravers, but Mr. Moss still maintains his position as head.

As to this style of picture, all our readers are interested in it and could build up some business for it.

Therefore we give them some hints above.

As to the picture pictorially, it is of the South Colonnade of the ruins on the Island of Philæ.

It was made with a Euryscope lens. To include the splendid capital on the right we were compelled to sit astride a ruined window sill, with nothing between us and the Nile, 60 feet below. Such subjects always aroused our enthusiasm and no work seemed too much to secure the choice points, for what a strange fascination there is about the land of the Pharaohs. The tiniest child becomes familiar with the name of Pharaoh before it can pronounce that of the President; and ere it can lisp the names of our three greatest rivers, well knows that story of the Nile which gave Moses to the young princess. Who is not familiar with the charming story of Joseph, slave, prince, and ruler in the land of Goshen?

And was not Egypt the land whereto the Mother Mary fled with the child Jesus, to escape the murderous Herod? Are not the pages of Holy Writ filled with allusions to this old land?

Egypt is the land where history was born; here words were coined that help us in our daily talk; here art and science once held sway, and sent their teachings far and wide. Before all this Egypt was. No matter from what point of view we focus our thoughts in our endeavors to get at the mysteries of the past, sharply before us comes the fact that before all else Egypt was. This sunny land bears the earliest record of man's attempt at outward expression; she still holds, in perfect condition, those monuments which bear the first written words. Her great river in this very temple was worshipped as Creator, and still by many who dwell upon its shores, tells us how Egypt began, and how the process of her creation continues year by year.

And what strange kings have ruled this wondrous land! The Pharaohs were succeeded by the Romans, the Greeks, and the Christians; these were followed by the rule of Islam, which in turn was followed by the march of higher civilization, that stalwart forerunner of Christianity. What subjects there are in Egypt for study, both among the pleasant people and the ruined

works of their ancestors, and this is one of the most striking.

It reached from the south, beginning at the principal landing on the water's edge. The columns are richly carved, the walls covered with paintings and sculpture, intermixed with Christian inscriptions and names of Roman emperors. Portions of the roof still remain, and much of the artistic work is still fresh looking. It gives one a curious feeling to meet the eyes of those calm Egyptian faces, and think that they have thus gazed with the same expression on the tide of humanity that has surged past them for 2000 years or more.

The colonnade is the most interesting study in the Island of Philæ. No effort seems to have been made here to secure regularity; indeed, the idea of the architect seems to have been quite the reverse. Roman and Egyptian art are here strangely combined. The Egyptian temple seems to have been constructed according to the lofty purposes of the talented architect, but not content with their height, the Roman enthusiast has added to their mightiness by a superstructure, bearing upon every side the likeness of the goddess who was worshipped there.

How like a view in fairy-land! And, indeed, this is the spot where the Arabian Nights locate many a charming romance.

Oh, Philæ! In whose arms these wonders piled
Have held us spell-bound, and our dreams
beguiled,
Could they but *speak*—thy temples—halls of
kings,
What *history* they could tell—*what wonderful things!*

Bright gem! thy ruin'd temples, sculptur'd stone,
Each holds a *mystery*—dark, and all its own!
Hail, Philæ! jointly with the cascade's roar,
Singing of Osiris—Isis praise once more.

Thy Nubian moon, whose shimmering rays
Doth push the ghastly shadows out—ablaze
Sets Sphinxes, obelisks, and column'd rows,
And cheers us, as we here our wand'rings close!

In our next middle month issue we shall present Mr. John E. Dumont's "Listening to the Birds."

PHOTOGRAPHING, A PICTORIAL ART.*

BY P. H. EMERSON, B.A., M.B. (CANTAB).

IN approaching the subject of art, one is appalled by its difficulty and complexity, for art is indefinable, although it is possible to say what is not art. The misconceptions and confusion in art matters are due to the literature of the subject. From early times nearly all writers on art have been laymen. These men have discussed art and art matters from the literary view, whilst the artists have kept silence and only expressed their opinions by their works. Hence, the unthinking public have had their opinions formed for them, and as the opinions were evolved from the inner consciousness of the writers, and not based on any logical first principles, it necessarily followed that opinion on art matters shifted like a weathercock. Now one school was held up as the pink of perfection, only to be ostracized from the realms of good taste a few decades later. And until quite recently the matter was quite hopeless. People said "art is a matter of taste, my taste is as good as yours, I say this picture is better than that, and now what have you to say?" To such argument there was then no answer. Anyone who has read the history of art—and a very interesting history it is—will be surprised at, and will look with pity on, the unthinking millions who have been swayed by opinions based on no reason. The days of metaphysics are over, and with them, we hope, has died all that class of pernicious illogical literature, evolved from the inner consciousness of man.

In our own day, the powerful effects of fine writing have had a most hurtful influence on the great British public in the artistic sense. One of these spasmodic elegants of art literature has made it a point to scoff at any connection between science and art, and has flooded the world, in beautiful writing in which his power lies, with dogmatic assertions and illogical statements. He has treated botany, photography, political economy, and I know not what other subjects, in a style which, had it been the

* Read before the London Camera Club.

work of a sixth-form boy at a good school, would have secured a well-merited punishment. Yet these false stones, in their beautiful setting of fine writing, have procured him as many worshippers as his hero himself. A lesser light than he, a poor creature, who has essayed to stride in his master's footsteps, has, with a little more truth, but with much less beauty and originality, devoted whole pages to attack and denounce photography. It is a question whether this writer is worthy of a happy dispatch; if so, I purpose killing him on a more public stage than this; and lastly, in our own branch of art, one writer has served up a senseless jargon of quotations from literary writers on art matters. The bulk of the work contains the quintessence of a blend of literary fallacies and art anachronisms, and yet, in spite of all these wiseacres, many a beautiful picture has been produced which has defied their every law. Let us briefly run through the different periods of art, and see how it was hampered and enslaved by external influences.

The earliest art was the scratchings of the men of the stone age upon their rocks, reproductions of which I pass round. Next we come to the fascinating period of Egyptian history; Egyptian pictorial art as handed down to us on the mural paintings of the tombs are, as you will see by the specimens, crude and commonplace. Akin to these are the remains we have of the monarchies of Western Asia. We then come to the cultivated and wonderful Greeks. Their plastic art is well known to most of us, and notwithstanding its age, is as beautiful to-day, and as much admired by artists, as it was then. Why is this? Is it to be explained why the Venus of Milo is more beautiful than the later production of Michael Angelo, the hyperthropic Moses? This will be seen later on. I pass round a few photographs from the antique, and a few from the works of Michael Angelo. Comparisons are unfortunate for Michael Angelo. Woltmann and Woermann tell us that no single specimen of the works of the great Greek masters has come down to us, but judging from the enthusiastic tone of the classical authors, we may surmise that artistic people attained as great profi-

ciency in some branches of pictorial art as we know they did in the plastic art. I pass round a photograph of one of the mural paintings at Pompeii, but these were only the work of journeymen.

When Rome began to subjugate Greece, art went into slavery. The early Christians employed it as a means to propagate their doctrines. The oriental idea of teaching by parables spread in their community, and we find the art of the catacombs enslaved to the new mysticism which arose on the Pagan ruins. The gorgeous monstrosities of Byzantium were also made a serf to religion. At last, in the twelfth century, we find the art of Italy developed into a national art, but still a slave to the church. Beautiful things were done, but alas! the great men of that period had to paint to order, to paint what are called works of the imagination, in other words, untruths; and what was the consequence? A surfeit of madonnas, annunciations, presentations, massacres, and other subjects, which are diametrically opposed to true art. With the great Leonard da Vinci a new departure was made; portraits and lay subjects became more frequent. The portrait I now pass round is the famous Mona Lisa, Da Vinci's great work. Works of all kinds were now produced, but still art was in slavery. Pictures were judged by preëxisting standards—a most fatal error.

In a brief paper like the present, it is perfectly impossible to finish even a rough sketch of the subject. Art went from one slavery to another; religion, morals, courts, kings, the literati—all in turn ruled it, until there was born, in Suffolk, one John Constable, the son of a miller. With a clear head, and a freshness and originality of genius, he sought to find beauty in nature, and not in picture galleries. A few of his pictures went to Paris, and the cultured few saw that he was right, that his was truth. Rousseau, the father of the French modern school, boldly struck aside and followed Constable. Cot, the tender, followed, but not to his full vent. Then came Jean Francois Millet—honored name—and later still the young Le Page, who died, alas! too young. These were the pioneers who established that naturalistic school which is now in the van of this nineteenth century.

I have found the greatest difficulty in making my remarks brief; it is as difficult to write a little about a great subject as it is to write about nothing. We must now leave this fascinating development of art, and show how and why photography is a fine art. Pictorial art is a man's expression by means of pictures of that which he considers beautiful in nature. Now, any art is a fine art which can, by pictures, express these beauties, and that art is best which best expresses them. Let us begin with painting, the master pictorial art for until we can reproduce the colors of nature, we can never equal painting; but all other branches of pictorial art we are able to surpass. Painting alone is our master. Now, let us see how far painting can reproduce nature. Professor Helmholtz has worked this question out for us, and to him I am indebted for the following notes. In reproducing nature, as he says, one of the principal things is the quantitative relation between luminous intensities. "If the artist is to imitate exactly the impression which the object produces on our eye, he ought to be able to dispose of lightness and darkness equal to that which nature offers." But of this there can be no idea. Let me give a case in point. Let there be, in a picture-gallery, a desert scene, in which a procession of Bedouins, shrouded in white, and of dark negroes, march under the burning sunshine; close to it a bluish moonlight scene, where the moon is reflected in the water, and groups of trees, and human forms, are seen to be faintly indicated in the darkness. You know from experience that both pictures, if they are well done, can produce with surprising vividness the representation of their objects; and yet, in both pictures the brightest parts are produced with the same white lead, which is but slightly altered by admixtures; while the darkest parts are produced with the same black; both being hung on the same wall, share the same light, and the brightest as well as the darkest parts of the two scarcely differ as concerns the degree of their brightness. How is it, however, with the actual degree of brightness represented? Now, although the pictures scarcely differ as regards the degrees of their brightness, yet in

nature the sun is 800,000 times brighter than the moon; but as pictures are lighted by reflected light, the brightest white in a picture has about one-twentieth the brightness of white directly lighted by the sun. Hence it will be seen that white surfaces in pictures in sunlight are much less bright than in reality, and the moonlight whites of pictures are much brighter than they are in reality. How, then, is it that there is any similarity between the picture and the reality? This is explained by the physiological process of fatigue. Any sense, as we know, is dulled by fatigue; to wit, the effect of loud noises and bright lights on hearing and seeing. The eye of the man in the desert is dulled by the dazzling sunlight, whilst the eye of the wanderer by moonlight has been raised to an extreme degree of sensitiveness. What, then, must the painter do? He must endeavor to produce by his colors in the moderating sensitive eye of the spectator in a picture gallery the same effect as seen in the sunlight or moonlight. To accomplish this, he gives a translation of his impression into another scale. We know, regarding all sensations, that any particular sense is so coarse that it cannot distinguish differences between certain wide limits. The finer distinctions of light cannot, therefore, be appreciated by the eye. The painter, therefore, must, as nearly as he can, give the same *ratio* of brightness to his colors as that which actually exists. Helmholtz says that "perfect artistic painting is only reached when we have succeeded in imitating the action of light upon the eye, and not merely the pigments."

Now let me give you an example of the fallacy of the pre-Raphaelites. They imitated the pigments, not the light. We thus see that much is impossible in art, and that one of the greatest points is rendering correctly the relative values or ratio of luminous intensities. Now we know that the effect of binocular vision is to force a scene on our perceptions as a plane surface; hence the painter has in this point no pull over the photographic lens, but rather the reverse. Of the greatest importance to a picture, also, is aerial perspective—that is, the scattering of light by atmospheric turbidity, more generally moisture. This turbidity is most

important, and the lack of it dwarfs distant objects; hence from the lack of it in the higher Alps, we get these caricatures which yearly adorn our galleries. These dwarfed maps of mountain peaks seem rather in fashion just now—heaven only knows why. No painter can do them justice, and no good one ever attempts them, and yet photographers, who are not so able to represent them, are constantly doing so, and, to show the prevalent ignorance, these photographs are often honored with the highest awards because of their sharpness and clearness. Letters have been written suggesting that English and foreign views should not be classed together, and much other nonsense of this description, all simply showing ignorance.

A work of art is, as we have said, an expression by means of pictures of what is beautiful, and the points to gauge in a picture are to notice what a man wishes to express, and how well he has expressed it. I know Switzerland, and love it well; but I would no more attempt to make a picture of a peak than I would of a donkey-engine. A peak, shrouded and accentuated by aerial turbidity, and just peeping into an Alpine subject, might, from its mystery and sentiment, add to the artistic value of a foreground subject. But the usual photographs of peaks could be of interest only in a Bedecker. This turbidity can be well rendered in a photograph. Painters, as we do, use optical instruments, such as Claude glasses, prisms, and the camera itself. The whole point, then, that the painter strives to do is to render, by any means in his power, as true an impression of any picture which he wishes to express as possible. A photographic artist strives for the same end, and in two points only does he fall short of the painter—in color, and in ability to render so accurately the relative values, although this is, to a great extent, compensated for by the tone of the picture. I here use the word in its artistic sense, and not in its misused photographic sense. How, then, is photography superior to etching, wood-cutting, charcoal drawing? The drawing of the lens is not to be equalled by any man; the tones of a correctly and suitably printed picture far surpass those of any other black

and white process. An etching, in fact, has no tones, except those supplied by the printer. As I have said before, if it falls short anywhere, it is in the rendering of the relative values, but the perfection of the tone corrects this in a great measure. There is ample room for selection, judgment, and posing, and, in a word, in capable hands, a finished photograph is a work of art. Again, it is evident that the translation of pictures by photogravure, for the same reasons given above, will be superior to that of any engraving. But we must not forget that nine-tenths of photographs are no more works of art than the chromos, lithos, and bad paintings which adorn the numerous shops and galleries.

Thus we see that art has at last found a scientific basis, and can be rationally discussed, and that the modern school is the school which has adopted this rational view; and I think I am right in saying that I was the first to base the claims of photography as a fine art on these grounds, and I venture to predict that the day will come when photographs will be admitted to hang on the walls of the Royal Academy.

Reference was made in the earlier part of this paper to Greek statues, and it is now easy to understand why they have endured so long, and are the beau ideals of the artists to-day, as they were of the artists of Ancient Greece. The secret all lies in the fact that they were done from nature, from actual living models—Phidias and Praxiteles tried their utmost to express in an artistic way, in living marble, the human being before them. They succeeded, and these statues to-day are of more value than the monstrosities of the middle ages, and are unequalled by the moderns. In closing I would say, the modern school of painting and photography are at one; their aims are similar, their principles are rational, and they link one into the other; and will, in time, I feel confident, walk hand in hand, the two survivals of the fittest.

GODERICH, ONTARIO.

I find that I cannot keep house without the PHILADELPHIA PHOTOGRAPHER; it is like trying to burnish prints without any lubricator.

R. R. SALLAWS.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

MARRIED BEFORE THE CAMERA.—Justice C. W. Blum, of Newark, N. J., was requested by Mr. Edward Werner and Miss Emma Miller to tie the knot of matrimonial felicity for them, and the office of the Judge being on the same floor with the photograph gallery of Mr. H. Friedrichs, they wished the marriage ceremony performed in the photographer's studio in front of the camera, so that the whole party, consisting of the bride and groom, with two young ladies and two young gentlemen, acting as bridesmaids and witnesses, should be portrayed, as they had learned that a few days before another bridal company had been pleasantly surprised by the photographer's taking their likenesses at the moment when the Judge pronounced the words which make the bride and groom wife and husband. Their request was granted, and once more the artist got the picture of a very pretty group in a very happy moment.

LONDON AND PROVINCIAL PHOTOGRAPHIC ASSOCIATION.—The Chairman referred to the various means used for breaking up gelatine emulsion previous to washing. This, in most cases, when mosquito netting and such-like methods were employed, proved a tedious process. He drew attention to a little machine found in most households, by which a large quantity of emulsion could be cut up very quickly—this was the ordinary mincing machine. The Chairman demonstrated the capabilities of a small machine of this kind, costing 8s. 9d., that he had brought down to the meeting, by mincing up some emulsion he had with him for the purpose.

EDINBURGH PHOTOGRAPHIC SOCIETY.—A discussion took place upon the question, "Should sensitized paper be fumed with ammonia before printing?"

J. P. Suverkrop, who has had considerable experience of photography in America, said that it was a common practice there to fume before printing. He thought the print was decidedly improved by the treatment, appearing to be more rich and brilliant in tone than when unfumed.

W. T. Bashford, while favorable to the

practice, was yet of opinion that if the silver bath was sufficiently strong, equally good prints were produced without it. Some papers, such as ready sensitized, did not seem to bear fuming well, but became disagreeably discolored under it, besides not keeping more than a day.

Mr. Turnbull remarked that it was curious that fuming, which was general in America, had never received much favor here. There was little doubt that it improved the appearance of the print during printing, but was the difference as marked when finished? He had not thought so. Fuming seemed to facilitate both printing and toning, and when a paper was found difficult to tone, it might be an advantage to fume it.

To what extent fuming might be regarded as saving silver was mooted, but nothing definite was said upon the point. This sounds strange to American photographers who fume universally.

THE BEAUTY OF A WORK OF ART.—A statue which was merely an exact copy of life—a photograph in marble—would not by any means give us all the æsthetic delight of which art is capable. In fact, it would not be art at all. It is only when the artist bodies forth some conception of his own mind that we are greatly stirred. Then, besides the immediate beauty of the melodies and harmonies of lines, and the mediate beauty, through associated ideas, of the supple and forceful forms, we have in some pathetic or heroic group in marble a world of quickened thoughts and feelings. In one of Wilhelm von Humboldt's "Letters to a Lady," he says: "The beauty of a work of art is, for the very reason that it is a work of art, much freer from imperfections than nature, and never excites selfish emotions. We observe it attentively, we wonder at it more and more, but we do not form any connection between it and ourselves. To the beauty of sculpture applies what Goethe has said so finely of the stars, 'We never desire the stars, although we take such pleasure in their light.'" Now, the explanation of this superiority of art to nature, æsthetically, is to be found in the fact that any personal relation to self narrows and lessens the spiritual activity.

Editor's Table.

THE *Century* magazine and *St. Nicholas* are among the best opportunities the students of our various art papers can have for the study of the principles laid down in those papers. The CENTURY Co., the publishers, and the art corps of these wonderful magazines have carried the matter of illustration to the highest point. The wood engravings and "actinized" pictures are in every sense artistic. Therefore all of our readers who refer to them may have an added pleasure and profit which the general reader does not get, namely, the opportunity of measuring the excellent pictures by the rules of art so plainly laid before them. There are one hundred and twenty-three such opportunities given in the April issues of the *Century* and *St. Nicholas*. What a picture gallery!

"GALATEA" is the title of a very lovely photograph, 11 x 19 panel, sent us by Mr. H. C. RINEHART, Denver, Col. It is a good attempt at sculpture photography, and is of Miss Lilian Olcott in the character of Galatea. The charming actress, with her richly adorned dress, is represented toying with a butterfly, which is resting upon the top of a column, the only accessory. The lighting is a little overdone from the right, but as a whole it is a lovely picture, and does the careful artist credit. We like to see ambitious work in this direction.

THE local press editors of America give much attention to photography now, and always welcome articles pertaining thereto into their columns. The article on "A New Picture," which we reprint from the *Boston Globe*, is an example of this, and a courtesy which we are glad to acknowledge in honor of an old and useful firm in our department. The people want photography, and if we hold on and keep cheerful awhile, we shall see it take a higher place than ever.

ITEMS OF NEWS.—Black jappaned developing trays, for use with the Eastman permanent bromide paper, are now supplied as large as 26 x 32 by the SCOVILL MANUFACTURING Co. and all dealers.

MR. C. KLARY, formerly of Algiers and Paris, has been in New York for some time perfecting himself in the use of the Kurtz system of electric-light portraiture. He returned to Paris, April 7th, to open a day and night studio—electric—and a correspondence for this magazine. He uses Seavey backgrounds, always.

MESSRS. BRAY & LICHTNER, Sydney, New South Wales, recently sent us the largest order we ever had from the Pacific for *Wilson's Lantern Journeys*. The lantern must be very popular in Australia.

MR. BROMLEY, of B. S. & B., Philadelphia, called upon us late in March. But an hour before he bade good-bye to Mr. CLEMENTS, of WILLIS & CLEMENTS, who "had sailed in good spirits for England." During the absence of Mr. CLEMENTS, his skilled assistant, Mr. BROMLEY, Jr., will see that platinotype matters are kept in tone.

A PHOTOGRAPHIC CAMERA in a hat, to be "set" at a friend while bowing to him or her in the street, sounds like a joke. But there is a still more wonderful hidden weapon, in the shape of a lens—that is, a big button on your jacket, and is uncovered at the precise moment for exposure by means of pocket strings. Of course, it is the Gray "vest camera" which is the coming excitement in photography. More about it, soon.

MR. OSCAR FOSS, the well-known dealer of San Francisco, sent us a subscriber for Guatemala a few days ago. At the foot of his letter he wrote: P. S.—Send me twelve copies more of *Wilson's Photographies*.

SUTER LENSES.—An English letter informs us that these excellent optical helpers "have been awarded the silver medal at the International Inventions Exhibition, 1885, and that Her Majesty's Government has purchased them for use at the Science and Art Department of the South Kensington Museum." For the Queen's work, surely nothing could suit her better.

MR. H. P. ROBINSON, the very well known author and artist, underwent a very painful surgical operation recently, from which there were grave doubts of his recovery. Our anxiety was greatly relieved a few days ago by a personally dictated letter from his son, stating that our friend was now on the fair road to complete recovery. We all rejoice over this.

MESSRS. CHAS. COOPER & Co.'s priced catalogue is ready and free to applicants. From Acid to Zinc, it covers more than we could put in eight pages of our magazine, and yet it is very compact.

MESSRS. PORTER & COATES, Ninth and Chestnut Streets, Philadelphia, have issued a second edition of *The Amateur Photographer*, by Dr. E. J. Waller. It is bound in flexible morocco.

MESSRS. P. SMITH & Co., Cincinnati, invite photographers *en route* to the St. Louis Convention to halt at "The Old Reliable" on the way, where Mr. D. K. CADY presides over the best-selected stock of photographic goods in the Southwest.

BOIL IT DOWN.—A subscriber writes: "I can readily see what an immense amount of reading you must do to give us such a magazine as your last issue. Why, do you know, there were eighty-one paragraphs of information, besides your 'Big Offer,' and your ten long and regular articles and editorials." Yes, we knew it, and yet we—*boil*.

"THE DEPARTMENT OF ART," our own contribution, is deferred for a month in order to give place to the excellent paper on "Photography a Pictorial Art," by Prof. P. H. EMERSON. See page 249.

THOS. PATTISON, Esq., the genial Chicago stock merchant (Smith & Pattison), called upon us recently. He had been South and West for a month on a health trip. He is larger than ever now, and never looked better. He showed us a handsome engraving of the Suter lens, of which he sells great quantities. He was en route for Chicago.

MISS CHARLOTTE ADAMS, whose chatty reviews "Our Pictures" have in the past been so acceptable and so useful, will, in our next issue, present us with a critical article on the six stars the first quarter of our semi-monthly. A rare treat may be looked for.

MR. HIRAM J. THOMPSON, Chicago, has been suffering from overwork recently, but is now in fair way to recover his wonted strength. Mr. THOMPSON is one of the most prosperous merchants in our line—because of his close attention to business, fair dealing, and strict integrity. Besides his stock depot, he runs an immense business in framing paraphernalia, chromos, gravings, and art goods.

WE regret to learn that among those who suffered by the dreadful fire of March 27th, in Columbia, Mo., our twenty-year subscriber and

friend, Mr. FRANK THOMAS, was completely burnt out. Loss \$5000, with only \$1000 insurance. While the ruins were yet smoking, he wrote: "My library is all burnt up, too—books, etc., that I have been accumulating since 1868. Send me the back numbers of the PHILADELPHIA PHOTOGRAPHER from January." A lot of books was hurried to him, with a copy of *Wilson's Photographics*, to "help build a new skylight to work both ways." Success to the Columbia Phoenix.

THEATRICAL groups by electric light for souvenirs are all the rage now in New York. "Evangeline" and "Adonis" have both been splendidly done lately by the photogravure process. As the idea is likely to become the rage, we shall comment more and tell how it is best done presently. The results are excellent.

STATE BOARD OF HEALTH. NATIONAL SANITARY CONVENTION.—A Sanitary Convention, the object of which will be to afford an opportunity for an expression of opinion on matters relating to the public health and the discussion of methods looking toward an advancement in the sanitary condition of the Commonwealth, the prevention of sickness and avoidable death, and the improvement of the conditions of living, will be held in Philadelphia, under the auspices of the State Board of Health, on Wednesday, Thursday, and Friday, May 12, 13, and 14, 1886. Among the thirty or more subjects to be discussed, the following are announced by prominent sanitarians: The water supply of towns and cities; ventilation; sanitary plumbing and drainage; tests for impurities in water, the use of filters; city *versus* country life, from a hygienic point of view. The public are cordially invited to take part in and help to make a success of this convention. At a later date, a circular of details will be issued. JOSEPH F. EDWARDS, M.D.,

Chairman Committee of Arrangements,
224 S. 16TH ST., PHILADELPHIA, PA.

MARRIED.—Mr. J. EZRA GAUSE to Miss MARY EDMONIA HOAGLAN, on Tuesday, March 23, 1886, at Brownsville, Tenn. Cards acknowledged with grateful thanks.

PICTURES RECEIVED. — From Mr. W. H. STAUFFER, Asbury Park, N. J., a fine photograph of his very neat establishment, including two wagons and horses, and his staff of employés at the door. A comfortable, well-to-do looking group. Mr. STAUFFER's art exhibition attracts many patrons. Messrs. ENGLE & ZOELLER,

Greenville, N. C., have sent us a cabinet, which they call "South"—a group of negro boys of various grades, which is very funny and well developed—in the blacks. Mr. T. W. INGERSOLL, St. Paul, Minn., has sent us a 14 x 17 view of the marvellous "Ice Palace," which is remarkably effective, and the finest we have seen taken of that subject. It is printed to show the effect of moonlight, and is very well done. The point of sight is also excellent. The palace is a wonder.

"WASHINGTON'S BIRTHDAY PARTY PICTURES" is the general title given to a series of cabinets of young people sent us by Mr. WM. McCOMB, Muskegon, Mich. They represent the Father of Our Country, his wife, generals, etc., and are exceedingly well managed and well done. The young people did much to help their amiable photographer in securing these pretty and excellent results. The pictures will be pleasant souvenirs of what must have been a merry occasion.

Mr. J. G. CRAWFORD, Albany, Oregon, sends us a catalogue of views—"What a Photographer sees through his Lenses, up the Columbia, Mount Hood, etc." The catalogue is neat, and we suppose the views are also excellent.

Mr. D. H. ANDERSON, 785 Broadway, New York, has again favored us with pictures of the famous tragedians, Salvini and McCullough; this time, size 10 x 17 panel. They far excel the smaller ones sent previously, and are both very characteristic of the great artists of the stage. Alas! McCullough is dead, but those who studied his renditions will never let him die out of their memories. Mr. ANDERSON deserves great credit for his care in securing such good portraits of these eminent men.

MESSRS. ROBERTS & FELLOWS, 1125 Chestnut Street, Philadelphia, have favored us with some excellent samples of silver printing, and with some enlargements on Eastman permanent bromide paper. These gentlemen do all sorts of printing for the trade and for amateurs. They are masters in the art. See, from time to time, "Our Picture."

The Journal of Science and Art is a new candidate for the favor of the aesthete. The first number is before us. It is a neatly covered magazine of twenty-four pages, and contains twenty-two instructive and timely articles, and

a number of illustrations. It is embellished by a splendid photo-engraving of our common friend J. F. RYDER, Esq., accompanied by a biographical sketch, with many points new to us, although we have known the subject for almost—yes—almost a quarter of a century. The journal is published by THE JOURNAL OF SCIENCE PUBLICATION Co., Cleveland, O., at \$2.00 a year, 20 cents per copy. Mr. E. HENRY FITCH is the conductor. We wish this new helper the best success.

THE Dubois Invoice and Letter File, advertised in our present impression, is the invention of Mr. FRANK G. DUBOIS, a talented photographer of this city. We make a brief allusion to it now, but shall return to it again. It will not only answer capitally all that Mr. DUBOIS claims for it as a file, but it is a splendid contrivance for storing film negatives, scrap prints, and what-not. We ordered six at sight.

THE most *recherché* design we have seen for a long time is the invitation card of the Pacific Coast Amateur Photographic Association to their first exhibition, which opened April 6th. It is decorated by two miniature instantaneous photographs, and came in an envelope, stamped and sealed, with others. It is tasteful and beautiful. The Committee of Arrangements is Messrs. W. H. LOWDEN, W. C. GIBBS, W. B. TYLER, GEO. TASHEIRA, VIRGIL WILLIAMS, and CHARLES G. HALE. Unfortunately the card of invitation came a day after the opening, so we could not telephone our congratulations, or be present even in spirit.

A FOREIGN guest has brightened our office on several occasions recently, in the person of Mr. W. H. CHADWICK, the genial Secretary of the Manchester Photographic Society. He has been in our country and Canada for three months and speaks in the highest terms of the courtesies which have been accorded him by photographer everywhere from Montreal to Bismark, Dakota. Mr. CHADWICK carries a handsome gold watch presented to him by his Society for his long-time service as Secretary. We believe that Society has a heart. It contributed seventy guineas to the Woodbury testimonial.

THE photographic orb is now acknowledged by astronomers, to be far superior to the telescope. What a marvel this is, in witness of which see the papers on "Celestial Photography," which appear in our pages this month.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~82~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



"The flowers that bloom in the Spring, tra-la, have something to do with the case," for we are engaged on a number of novelties suited to the approaching season. Our regular customers are requested to send for sample prints.

Address LAFAYETTE W. SEAVEY,
Studio, 216 E. 9th St.,
New York.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises, or \$4500 cash without the negatives. Address

LEON VAN LOO,
148 W. Fourth Street,
Cincinnati, O.

RETOUCHING BUREAU.—Under the direction of Mr. H. Harshman. None but skilled help employed. Quality of work guaranteed. Prices moderate. Send your negatives in wooden box with cover screwed on, and prepay charges.

Address GAYTON A. DOUGLASS & Co.,
Merchants in Photo. Supplies,
185 & 187 Wabash Avenue,
Chicago, Ill.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

WILLIS & CLEMENTS,

25 NORTH SEVENTH ST., PHILADELPHIA, PA.

BUCHANAN, SMEDLEY & BROMLEY,
General Agents for the sale of materials.

NOVELETTE CAMERA.—We are now ready to furnish these in 8 x 10, 6½ x 8½, 5 x 8, and 4 x 5 sizes. They are lighter and more compact than the novel camera, using our patent improved dry-plate holder of same size as the Fairy Camera. They all have the patent spring-hook for holding the bed rigid when extended, and are finely finished. Price same as for the Novels.

E. & H. T. ANTHONY & Co.,
591 Broadway, New York.

THE best artists and solar printers in the United States and in Europe use platinotype paper for large and small pictures. This paper is manufactured for Willis & Clements' Platinotype Process, and is the *purest* and *most desirable* grade of paper made in the world for ink, crayon, or pastel. Samples free.

BUCHANAN, SMEDLEY & BROMLEY.
Importers, 25 N. Seventh St., Phila.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

WANTED.—An A No. 1 operator to take charge of that department of one of the leading galleries of St. Louis. Address G. H. B.,
care J. C. SOMERVILLE,
1009 Olive St., St. Louis, Mo.

TO PHOTOGRAPHERS.

We have recovered from the disastrous fire which overtook us on the night of January 25th, at 715, 717, and 719 Arch Street, and are now located at 907 Filbert Street, with new and improved apparatus, and ready to fill orders in either of our three methods of engraving: wood-engraving, photo-engraving, or our Ives process.

Our work retains tone and spirit of the artist's touch in a manner that could not be approached by the pen or graver.

Besides the advantages respecting quality, the rates are lower than any other method of engraving.

THE CROSSCUP & WEST ENGRAVING Co.,
907 Filbert Street, Philadelphia.

Patent Improved Telescopic Folding Tripod, with automatic leg fastenings. Perfectly rigid, the legs being held in position firmly, and it is impossible for them to become unfastened until the spring that holds them in is pressed back. This spring also forms a washer for the tripod screw.

E. & H. T. ANTHONY & Co.,
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FOR SALE.—At great advantage, one 8 x 10 single, wide-angle Dallmeyer lens; perfect. \$25.
Address S. A.,
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853 Broadway, New York.

FOR SALE.—Cheap, complete outfits for 4½ x 3½, 5 x 4, and 8 x 5 plates. For particulars,
Address "E,"

Office of PHILADELPHIA PHOTOGRAPHER,
853 Broadway, New York.

SOME first-class artistic photographer, who wishes to purchase a nice business having custom from twenty-seven surrounding towns, and where there is no war on prices—cabinets \$5.00—can hear of one by addressing

EDMONDSON,
Norwalk, Ohio.

OUR dark-room and laboratory are under the charge of Dr. John Nicol, photographic chemist, late of Edinburgh. None but purest chemicals used in our preparations. All the standard dry-plate developers kept in stock. Your Patronage desired.

GAYTON A. DOUGLAS & Co.,
Merchants in Photo. Supplies,
185 & 187 Wabash Avenue,
Chicago, Ill.

BUCHANAN'S

READY DEVELOPER

FOR

EASTMAN'S BROMIDE PAPER.

BEST, SUREST, AND MOST BRILLIANT.

Send for circular. Prepared only by

BUCHANAN, SMEDLEY & BROMLEY,

PHOTO STOCK MERCHANTS,

25 NORTH SEVENTH ST., PHILADELPHIA.

FOR SALE.—Strictly first-class gallery; best location on Broadway. Address

E. L. WILSON,
853 Broadway, New York.

WANTED.—A lady to retouch, spot, and attend reception-room. Please send samples of work, references, etc. Address PHOTOGRAPHER,
Box 1146, Springfield, Mass.

WANTED.—By May 1st, an A No. 1 operator and retoucher. Good wages and a permanent position to the right party. Address

A. N. CAMP, Jamestown, N. Y.,
Or BUCHANAN, SMEDLEY & BROMLEY, Phila.

FOR SALE.—Ill health compels the sale of the leading gallery in one of the best towns in central Illinois. A well-established business. 10,000 negatives. Water works. Long lease. Good prices, and complete outfit of instruments and accessories. Will invoice \$1500 without negatives. Will sell for \$1000, on easy payments, with liberal discount for cash. Address

P. O. Box 48,
Jacksonville, Ill.

WHAT THEY SAY ABOUT OUR MAGAZINE.

NEW ALMADEN MINE,
SANTA CLARA, CO., CAL.

I find it full of valuable information for an amateur.

S. E. WINN, M.D.

BINGHAMTON, N. Y.

The January number received, and full of good things. I wish you success.

GEORGE N. COBI

WEATHERFORD, TEXA

To it I am more indebted than to any other. I trust your efforts for us in 1886 will be heartily appreciated by our craft.

ALFRED FREEMAN

SAN FRANCISCO, CA

I see we are to have your magazine twice a month now, a fact which cannot be enough appreciated by your subscribers.

DR. S. C. PASSAVANT

FOR SALE.—A small gallery, doing a business of over \$100 per month. Cheap for cash. Good reasons for selling. Address

P. O. Box 293,
Mahanoy City, Pa.

I WANT an A No. 1 retoucher; one that can assist in printing and toning, and make himself useful. Address

E. J. POTTER,
Mansfield, O.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers, 392 Bowery, or 487 Eighth Avenue.

As retoucher; can do first-class work. Wages \$12.00 per week. The West preferred. Address Box 99, Lincoln, Neb.

By a first-class retoucher and printer; can operate. South or West preferred. Address C. W. Biles, Fostoria, Ohio.

Permanently, by May 1st, as retoucher and printer. Good habits. Would rent a good gallery. Southwestern part of State preferred. Address C. L. French, Garrittsville, Portage County, Ohio.

By a lady, of several years' experience, in reception-room. Understands retouching negatives and coloring in ink, crayon, and water-colors. Address R., 2106 Wabash Avenue, Chicago, Ill.

By a young man of temperate habits, as printer and toner. Has had some experience in operating. Address Box 604, Findlay, Ohio.

By an A No. 1 photographer, of twenty-four years' experience, who is a good retoucher. Reference from a leading chemists and Professors of the University of Virginia. Address until May 30th, Rapid, Charlottesville, P. O., Va.

By a young lady as printer in a copying house. Address M. Besio, Pottsdam, N. Y.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By a young lady, as finisher. Has had experience in India-ink and water-color. Address Miss A. V. Pratt, 3947 Reno Street.

In a first-class gallery. Will take charge of any department or assist generally. Address, stating salary, E. Y. Maire, Box 373 Cleveland, Ohio.

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MERCHANTS IN

SUPPLIES FOR PHOTOGRAPHY,

185 & 187 Wabash Ave.,

CHICAGO.

THE DuBOIS FILE.

Patented September 2, 1884.

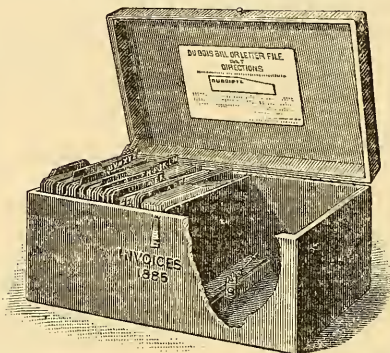
Economical! No Binding! Either a Temporary or a Permanent File.

NEW YORK,
March 26, 1885.

FRANK G. DuBOIS, Esq.,
512 W. 30th St., City.

DEAR SIR: Having used the DuBois Letter and Bill File in my office for the past two years, I can recommend it as being all that you claim, and the most convenient and simple article for filing papers that I have ever used. Its chief point to me is the time saved in referring to papers that have been filed.

Respectfully,
GEO. R. BIDWELL.



NEW YORK,
March 27, 1885.

MY DEAR SIR: I desire to say a word in commendation of your *very excellent* file. I have had one in use in my office for about a year, and find it a *necessity*. So compact, so handy, so complete that I would not be without it.

Very truly yours,
STEPHEN W. MERRITT

FRANK G. DuBOIS, Esq.,
No. 512 W. 30th St., City

Sent by Express, prepaid, on receipt of \$3.00, or with lock and key, \$4.00.

PATENTEE AND SOLE MANUFACTURER,

FRANK G. DuBOIS, 512 W. 30th St., New York

Liberal discount to agents and dealers. Write for descriptive circular.

HYPOSULPHITE OF SODA FOR PHOTOGRAPHERS.

CHAS. A. W. HERRMANN,
99 Water St. New York

PHOTOGRAPHERS' ART VINE.

Beautiful and durable Ivy Vine for scenic effects; manufactured especially for photographers. All natural vines and leaves imitated. Send for circular. Special rates to dealers in photographers' supplies.

S. G. SHERWOOD,
232 Vermont St., Buffalo, N. Y.

C. H. CODMAN & CO. Photographic Stockdealers

Sole Agents for the NEW ORTHO-PANACTINIC LENS, Moor's Photographic Enamel, the Perfect Mounting Solution for mounting Photographs on the thinnest mount without wrinkling.

New England Agents for American Optical Co.'s Apparatus. The best in the world. Send for Price List.
34 Bromfield Street. BOSTON, MASS

The Photo-Gravure Company,

853 Broadway, New York.

PHOTO-	{	GRAVURE LITHOGRAPH CAUSTIC GELATINE	}	PRINTING
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PROCESSES OF THE PHOTO-GRAVURE COMPANY.

PHOTO-GRAVURE.—By this process the highest artistic effects are produced. Metal plates are engraved (in intaglio) by photography and printed in copper-plate presses. The effects produced by photography may be altered by the hand of the artist, values may be increased or diminished, and almost any omission or addition made. The work may be carried on till the desired effect is produced and the edition is always uniform. The plates can be supplied when desired, or the Photo-Gravure Co. will do the printing. The results obtained by the Photo-Gravure Co. equal the best results obtained abroad, and reference to this effect is permitted to Advertising Publishers and Artists who have used these plates. All classes of subjects, whether in half-tone or line, can be produced by this process.

PHOTO-GELATINE PRINTING.—The results produced by this process are similar to what is known as Albertype, Artotype, Heliotype, Autoglyph, Phototype, Lichtdruck, &c. The particular method used is that patented by Mr. T. C. Roche, and is believed to give the best results at the least cost. The Photo-Gravure Co. has in this department the best staff of printers in the country and a most extended experience of the treatment of gelatine for the purposes of printing. All classes of subjects are suitable for reproduction by this process, and it is especially suitable for portraits, views, architecture, art, catalogues, scientific and natural objects, book illustration, town, county, and family histories, theatrical and general advertising, reproductions of engravings, machinery, animals, and still life, copies of deeds, instantaneous effects, scientific records, mill labels, etc.

PHOTO-CAUSTIC PRINTING.—This term is applied to a modification of the results produced by Meisenbach, Ives, and others. By this modification the photographic effect is produced from stone. No attempt is made to produce engraved plates, but the printing is done by the Photo-Gravure Co., and by this means greatly better results are obtained than where plates are made and placed in the hands of the ordinary printer. The results are not as good as those obtained from Gelatine or by Photo-Gravure, but they are sufficiently good for a number of purposes where the quality of the higher grades of work is not necessary. It is applicable to all the purposes of the other processes, but is lower both in cost and quality.

PHOTO-LITHOGRAPHY.—The results of this well-established process are well known. It is the oldest of the photo-mechanical processes, but is only adapted to the reproduction of original drawings or engravings which are made in a black or other non-actinic color on a white or light ground. We have in our employ on this work the most skilful staff in the country, and for many years have made it a specialty. Photo-Lithography is unrivalled for the reproduction of maps, plans, tracings, surveys, patents, and other drawings, engineers' and architects' designs, *fac-simile* letters and circulars, exhibits in law cases, miniature catalogues, copies of line engravings, reduction or enlargement of line work, etc.

A Book of Specimens of our various processes will be forwarded on receipt of One Dollar, and all inquiries will be promptly answered. Special arrangements made with photographers.

THE PHOTO-GRAVURE CO.,

853 Broadway, New York.

The Eagle Paper Keeps its Place as Leader.

Try the New Colors of the Leading

DRESDEN ALBUMEN PAPER.

IMPROVED

EXTRA-BRILLIANT PENSEC,

10 KILOS.



10 KILOS.

EXTRA-BRILLIANT NEW ROSE.

It Possesses the Highest Durability of Color.

Never Blisters. It Keeps Well after Silvering.

It Tones Easily. It Gives the Most Vigorous
and Brilliant Prints. It is the Best

Selected Paper.

is Always Uniform and Reliable, and has the Least
Objectionable Water-Mark. The Majority
of Artists will Have It.

SAMPLES FREE ON APPLICATION.

For Sale by all Stockdealers in the United States
and Canada.

G. GENNERT,

Importer,

**No. 54 EAST TENTH STREET,
NEW YORK.**

THE ARGENTIC DRY PLATE.

A Splendid New Picture.

Among the desirable advantages are rapidity, cleanliness in manipulation, permanency, certainty of good results, absence of all pinholes, metallic stains, discoloring, fog, frilling, and other dry-plate ills. Pictures deliverable ten minutes after the sitting. Full directions with each box.

LIST OF SIZES AND PRICES.

2 dozen $3\frac{1}{4} \times 4\frac{1}{4}$, per box, . \$0 90	2 dozen 5×8 , per box, . \$2 2
2 " 4×5 , " . 1 25	2 " $6\frac{1}{2} \times 8\frac{1}{2}$, " . 3 7
2 " $4\frac{1}{4} \times 5\frac{1}{2}$, " . 1 50	2 " 7×10 , " . 4 0
2 " $4\frac{1}{4} \times 6\frac{1}{2}$, " . 1 80	2 " 8×10 , " . 4 5
2 " 5×7 , " . 2 00	1 " 10×14 , " . 4 0

A splendid opportunity to increase business is offered by the New Argentic Dry Plate.

FOR SALE BY ALL DEALERS.

PHENIX PLATE CO

Manufacturers,

WORCESTER, MASS.



→ **THE** ←

PHOTOGRAPHIC TIMES

→ **FOR APRIL** ←

WILL CONTAIN ARTICLES WRITTEN EXPRESSLY FOR ITS PAGES, BY

G. WATMOUGH WEBSTER, F.C.S.	PROF. H. D. GARRISON.
PROF. H. W. VOGEL, Ph.D.	PROF. S. W. BURNHAM.
DR. CHARLES EHLMANN.	HENRY L. TOLMAN.
DR. JOSEPH MARIA EDER.	H. EDWARDS-FICKEN, and others.

A series of papers on "DRY-PLATE MAKING FOR AMATEURS," by DR. G. W. SINCLAIR, of Halifax, well known as the inventor of the popular Pelletone Pyro Tablets, will be commenced in the April Weeklies.

The valuable and interesting articles entitled "THE ART IN IT," by W. J. STILLMAN, will be continued.

An illustrated article entitled "A PHOTOGRAPHIC STUDIO ON WHEELS," will also appear during this month. All this will be given with the regular EDITORIALS, SOCIETY NEWS, CORRESPONDENCE, NOTES AND QUERIES, AND COMMERCIAL INTELLIGENCE.

RECAPITULATION FOR MARCH.

The Art In It.....	By W. J. STILLMAN.
Frills and Blisters, their Theory and Cure....	By G. WATMOUGH WEBSTER.
Azaline and Cyanine.....	By DR. CHAS. EHLMANN.
Negatives on Paper.....	By W. K. BURTON.
A New Orthochromatic Method.....	By VICTOR SCHUMANN.
Researches on the Chemical Action of Light.....	By DR. J. M. EDER.
Photography in Germany.....	By DR. H. W. VOGEL.
Working Solutions.....	By HENRY M. PARKHURST.
On Wasting Silver.....	By W. H. SHERMAN.
Recovering Damaged Plates.....	By DR. AUGUSTUS LE PLONGEON.
The Improved American Bromide Paper for Positive Prints and Enlargements.....	By F. C. BEACH.
Precision in Calculation of Exposures.....	ANONYMOUS.
Spectrum Photography.....	By DR. CHAS. EHLMANN.
Dog Fight on a Dry Plate.....	By J. PETERS.
Pyro in the Emulsion.....	By DR. G. W. SINCLAIR.

There may be some who are not fully aware of the growth of our Journal, so to such and others an offer is made of a month's trial (our weeklies)

FOR 30 CTS.

SCOVILL MANUFACTURING CO.

W. IRVING ADAMS, Agent.

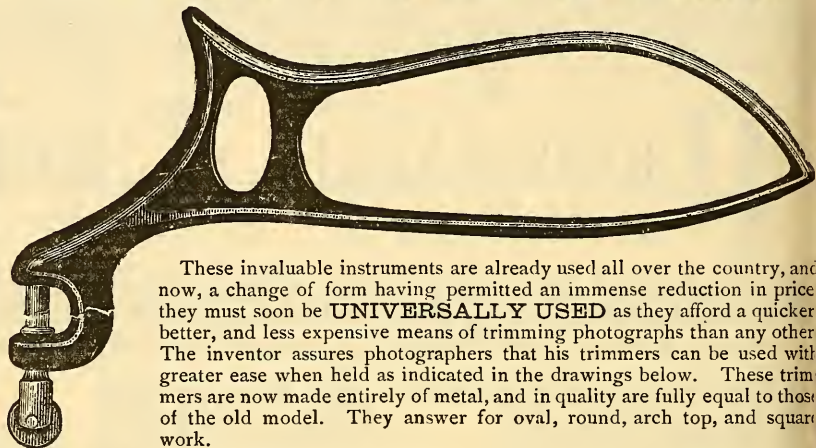
Publishers.

Subscribe now and secure the back numbers
before they are all sold.

720 (5 gross) of these trimmers were sold to one party in July.

ROBINSON'S NEW MODEL PHOTOGRAPH TRIMMERS!

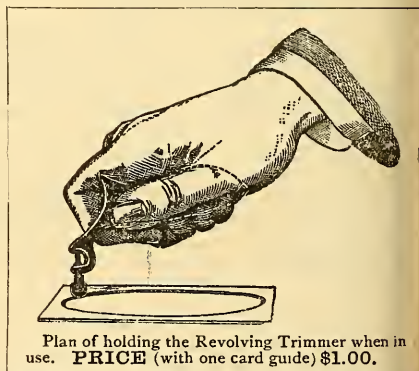
This drawing is of the full natural size and shape of the New Model Revolving Trimmer. The *Straight Cut* is of same size, varying but little in shape.



These invaluable instruments are already used all over the country, and now, a change of form having permitted an immense reduction in price they must soon be **UNIVERSALLY USED** as they afford a quicker better, and less expensive means of trimming photographs than any other. The inventor assures photographers that his trimmers can be used with greater ease when held as indicated in the drawings below. These trimmers are now made entirely of metal, and in quality are fully equal to those of the old model. They answer for oval, round, arch top, and square work.



Plan of holding the *Straight Cut* Trimmer when in use. PRICE, 50 CENTS.



Plan of holding the Revolving Trimmer when in use. PRICE (with one card guide) \$1.00.

ROBINSON'S GUIDES

MADE OF SHEET-IRON.

We have the following Regular Sizes always on hand at 10 cents per inch the longest way of the aperture.

OVALS.

2 x 2 $\frac{1}{2}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 x 7
2 x 3 $\frac{1}{8}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 $\frac{1}{2}$ x 3 $\frac{1}{8}$	3 $\frac{3}{8}$ x 4 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 x 3 $\frac{1}{8}$	3 $\frac{3}{8}$ x 5 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 x 3 $\frac{1}{8}$	4 x 5 $\frac{3}{8}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$
2 x 4 $\frac{1}{4}$	4 $\frac{3}{8}$ x 6 $\frac{3}{8}$	6 x 8

6 $\frac{1}{2}$ x 8 $\frac{1}{4}$
6 $\frac{1}{2}$ x 8 $\frac{1}{4}$
7 x 9
7 $\frac{1}{2}$ x 9 $\frac{1}{4}$
7 $\frac{1}{2}$ x 9 $\frac{1}{4}$
7 $\frac{1}{2}$ x 9 $\frac{1}{4}$

SQUARE OR ROUND CORNERED.

2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	2 $\frac{5}{8}$ x 3 $\frac{3}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{2}$	4 x 6
2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	2 $\frac{5}{8}$ x 3 $\frac{3}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{2}$	4 $\frac{1}{2}$ x 6
2 $\frac{1}{8}$ x 3 $\frac{3}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{2}$	3 $\frac{3}{8}$ x 5 $\frac{1}{2}$	3 $\frac{3}{8}$ x 6
2 $\frac{1}{8}$ x 3 $\frac{1}{8}$			4 x 6

FOR STEREOGRAPHS.

Arch Tops.	Round Cornered.	Round
3 $\frac{1}{8}$ x 3 $\frac{3}{8}$, 3 x 3	3 $\frac{1}{8}$ x 3 $\frac{3}{8}$, 3 x 3	3 x 3

The above sizes suit the Collins Card Mounts, and photographers knowing that they can always had at the low price of ten cents per inch, would do well to make their sizes accord, orders can also be filled more quickly. Ten days are required to make special sizes.

Special Sizes made to order, at 15 cents per inch, the longest way of the aperture.

ROBINSON'S PHOTOGRAPH TRIMMERS are substitutes for the Knife for Trimming Photographs, and do the work much more expeditiously and elegantly. They Save Time, Save Prints, and Save Money.

They do not cut, but *pinch off* the waste paper, and leave the print with a neatly bevelled edge which facilitates adherence to the mount. Try one, and you will discard the knife and punch once. For ovals and rounded corners they are worth their weight in gold.

For sale by all Dealers.

ROBERTS & FELLOWS,

Successors to E. L. WILSON,

1125 Chestnut St., Phil

KEYSTONE DRY PLATES.

AHMEDNUGGUR, BOMBAY PRESIDENCY, INDIA.

MR. JOHN CARBUTT,

Keystone Dry-Plate Works,

PHILADELPHIA, PA.

DEAR SIR:·

I received your Special Portrait Dry Plates from Messrs. Scovill Manufacturing Co., New York. I found your Plates very excellent for this climate; never frill. I enclose two C. D. V. Portraits, which are prints from your Keystone Plates; also my likeness. Mr. Wilson wishes me to send him some negatives for an illustration in his journal. I shall try to send him some negatives made on your Plates.

Yours truly,

NURSOO DEWJEI POOPAL,

Photographer,

AHMEDNUGGUR.

TO THE TRADE.

I will receive from time to time the Cabinet Stock of a prominent card factory, from which the perfect goods have been selected.

This will consist of all grades and tints, and range in price from \$2.50 to \$5.00 per thousand. For various purposes this line will be found useful.

GEORGE MURPHY,

50 Mercer Street,

NEW YORK.

EASTMAN'S NEGATIVE PAPER.

EMINENT TESTIMONY.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, BOSTON, March 22, 1886.

EASTMAN DRY PLATE AND FILM CO.

GENTLEMEN: I am delighted with the 8 x 10 Roll-holder you sent me. I shall use it exclusively this summer for all my landscape work, and shall teach its management to all my students next winter. I should like another one, $3\frac{1}{4} \times 4\frac{1}{4}$ size.

Yours truly,

H. W. PICKERING.
Professor of Chemistry.

UNION COLLEGE, SCHENECTEDY, N. Y., March 9, 1886.

EASTMAN DRY PLATE AND FILM CO., Rochester, N. Y.

SIRS: I am delighted with the Negative Paper. I do not think I ever had better negatives. I hope soon to send the size of my camera for the Roll-holder.

Respectfully yours,

MAURICE PERKINS,
Professor of Chemistry.

1123 ARCH ST., PHILADELPHIA, PA., March 19, 1886.

EASTMAN DRY PLATE AND FILM CO., Rochester, N. Y.

GENTLEMEN: Now that the trouble of oiling by your very perfect preparation "Translucine," is made so easy and satisfactory, I can get as good a result as from any plate that I have worked.

DR. J. F. LEWENBERG.

ORDER ROLL-HOLDERS BEFORE THE SUMMER RUSH BEGINS.

Send for New Illustrated Catalogue of Negative Paper, Roll-holders,
Carriers, and all our Specialties.

Eastman Dry Plate and Film Co.

ROCHESTER, N. Y., U. S. A.

BRANCH OFFICE, 13 SOHO SQUARE, LONDON, W. ENGLAND.

New Book by Dr. H.W. Vogel,

—THE—

PROGRESS OF PHOTOGRAPHY.

THE BEST EFFORT OF THIS VETERAN TEACHER.

Every Photographer and Amateur should Read it Carefully.

- CHAPTER I.
PHYSICAL EFFECTS OF LIGHT.
- CHAPTER II.
CHEMICAL EFFECTS OF LIGHT.
- CHAPTER III.
PHOTOGRAPHIC CHEMISTRY.
- CHAPTER IV.
PHOTOGRAPHIC OPTICS.
- CHAPTER V.
PHOTOGRAPHIC APPARATUS.
- CHAPTER VI.
THE NEW PHOTOGRAPHIC
PROCESSES.
- CHAPTER VII.
PHOTOGRAPHIC ÆSTHETICS AND
PORTRAIT TECHNIQUE.
- CHAPTER VIII.
PHOTOGRAPHY FOR AMATEURS.



As the Artist should Study all about the Face, so should the
Photographer Study all about his Art.

NO BETTER OPPORTUNITY TO DO THIS IS AFFORDED THAN THAT FOUND

IN

Progress of Photography.

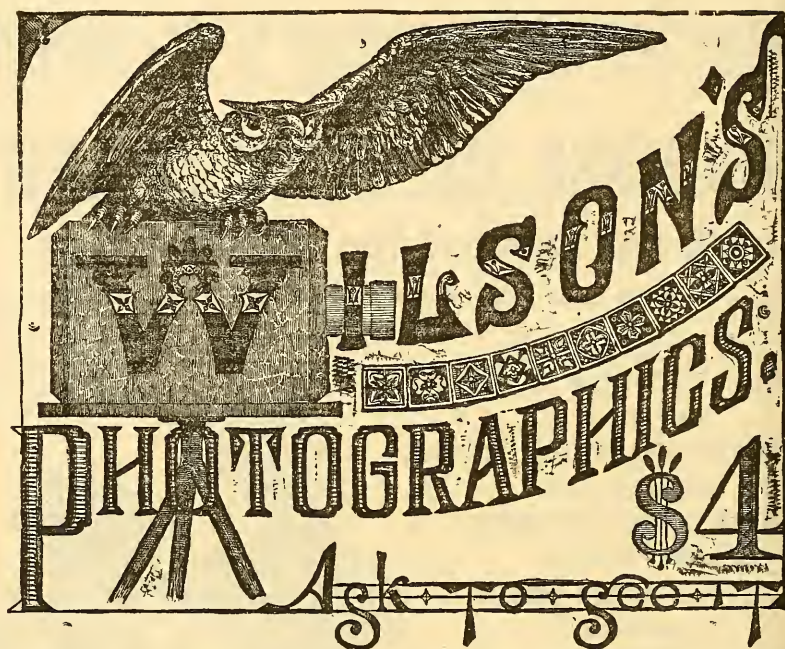
847 PAGES.

\$3.00 — PRICE — \$3.00

With Seventy-two Illustrations, and an admirable portrait taken with
Electric Light, by W. Kurtz, New York.

EDWARD L. WILSON, Publisher, 853 Broadway, New York.

FORTY-FIFTH HUNDRED BEING SOLD.



A PARTIAL PHOTOGRAPHIC ENCYCLOPEDIA

By EDWARD L. WILSON, Editor "Phila. Photographer," "Photo. Mosaics," etc.

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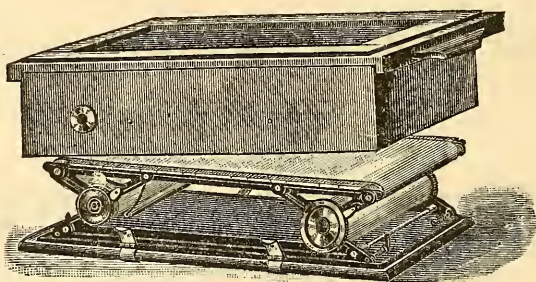
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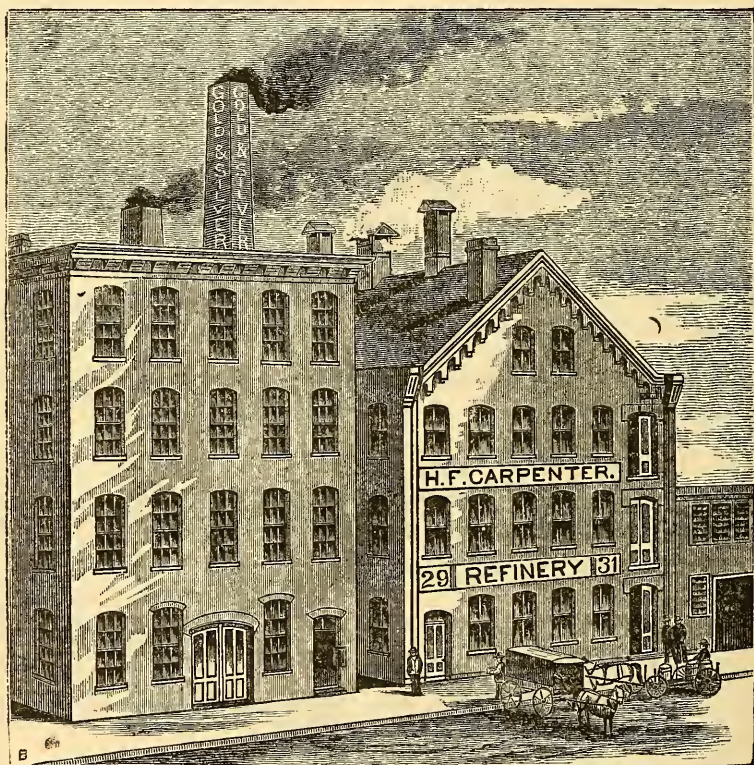
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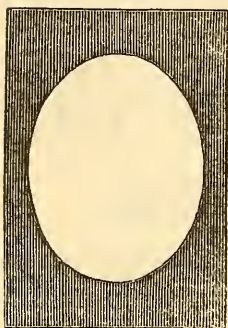
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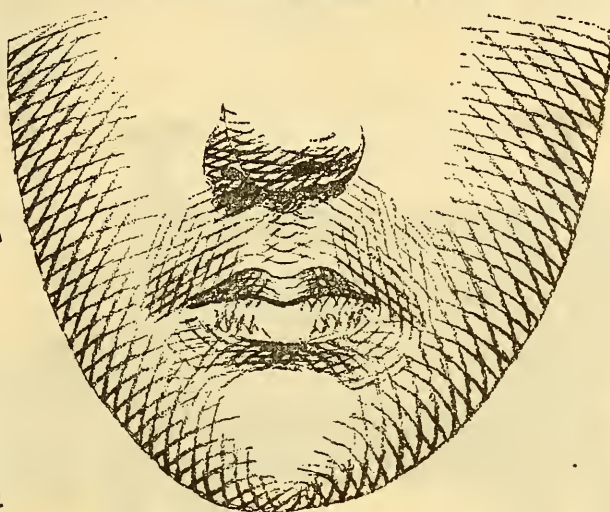
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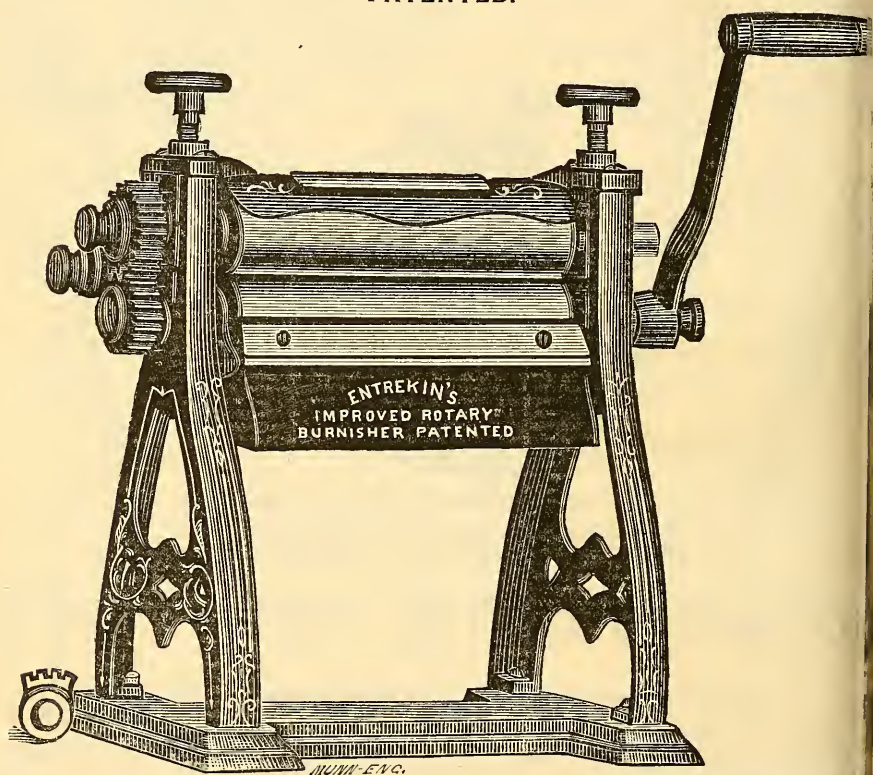
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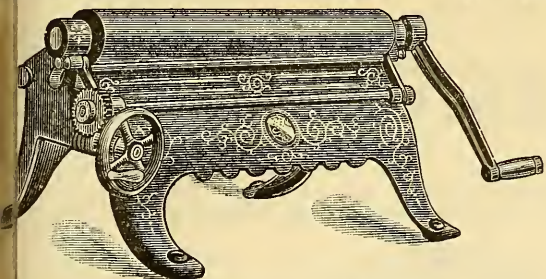
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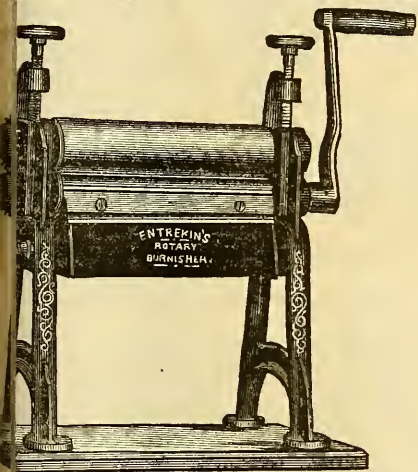
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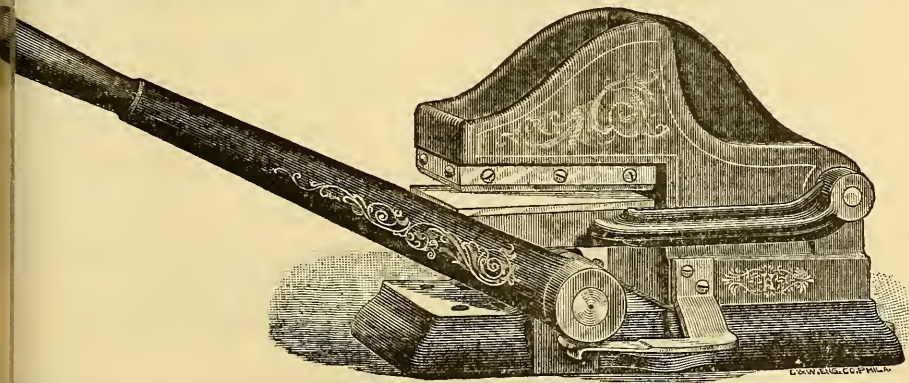
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Vol. XXIII.

MAY 1, 1886.

No. 273.

NEGATIVE PAPER AND PERMANENT BROMIDE PAPER.

NOTWITHSTANDING the subject has been discussed in our pages ever since it became a subject for discussion, our daily correspondence burdens us with a myriad of questions which prove that there is still a great want of information among the craft on this important topic.

Some of the questioners seem to deprive themselves of the advantages of the new paper, because they "don't want to be taken in." Moreover, "if anything better is on the way, we prefer to wait." Again they ask, "is there any other besides Eastman's, and is it safe to buy?" Now, once for all, let what follows try to set at rest the minds of the sceptical and help clear up the way for them to share all the advantages which any one else shares.

In the first place, permit us to say that there are "other roll-holders besides the Eastman's"—several of them in Europe, and our own American manufactures take the lead even in Europe where the others were made.

As to the "history of the invention" etc., we are sure the majority of our readers would grow impatient if we attempted to give it all its minute details, but we will give a few points in that direction, then once more explain some of the uses of "the new paper and paper negative."

Paper coated with sensitized gelatine is

not a new invention, since it is well known that Baldus, twenty years ago, made experiments with paper prepared with iodized gelatine. This was slow; to-day we require more rapidity in the operations, and in most all our preparations bromide has taken the place of iodide.

In 1873, Mawsdley had already proposed the use of bromized paper; but, notwithstanding his advice, the experiments made with it were unsuccessful, his formulas, and especially the mode of preparation, being still defective. Morgan, in Paris, has had good success, contemporary with Eastman.

What is permanent bromide paper for? To begin with, you can make an enlargement on it from a card negative. The exposure is, say, fifteen seconds in diffused light, and the development, that given in the formulas furnished with each roll. You should know that gelatino-bromized paper renders at present immense services. The sensitiveness is so great that it is possible in a few seconds, by the light of a candle, to obtain by contact with any negative whatever a very good print; even moonlight will print quickly. Mr. Charles White, in 1883, made with such paper a rather curious experiment: "Taking into consideration," says he, "that the luminous intensity decreases in a direct ratio to the square of the distance, it seems incredible that after having travelled from the sun to the moon, and thence by reflection to the earth, this uncertain light

should have preserved sufficient actinic power to act upon a sensitized surface, and this in the month of November, when the atmosphere is filled with fog. Such is a fact, however. The prints that I now present were made in from nine to ten minutes by moonlight at 8.30 P. M. upon Morgan paper. Here we have a very extraordinary and successful result." Any of you, gentlemen, can obtain the same result whenever you wish to do so.

This extreme sensitiveness has been utilized by science in many divers ways; medicine uses it to ascertain the presence of subtle poisons, observatories to register the atmospheric changes, which previously it had not been possible to do, etc. In photography it is certain that it can render great service when it is necessary to produce a great number of prints in a short space of time. One can, in five minutes, produce alone, by gaslight, forty prints from the same negative. The gelatino-bromized paper is placed under a negative in the pressure frame exposed to gas or any other light, developed with oxalate and iron, then fixed. The operation lasts between five and six minutes, whatever may be the number of prints.

Thus obtained, these prints, although strong, have the softness of the finest crayon drawings, together with photographic delicacy and preciseness.

Let us now pass to enlargements, for which the gelatino-bromized paper has considerable value. Every one knows that with the ordinary processes with a print or even small negative, several difficult operations are indispensable to obtain an enlarged print. First, it is necessary to print by contact or already to enlarge slightly, either a gelatino-bromized, or chlorized plate, or collodion plate, or a positive by transparency, from which is obtained a large negative to be used in printing; finally, the enlargement, either with carbon or on albuminized paper. With gelatino-bromized paper all these operations are done away with. It is the little negative itself that gives the enlarged picture. What rapidity of execution, and at the same time what rigorous exactitude!

In another article soon we shall show

more fully the details of manipulation in the enlarging process, together with drawings of the apparatus.

We are often asked "What negatives are the best suited for enlargements?"

The negative to be enlarged should be transparent in the blacks, not too much covered or only partly in the whites, amply exposed and developed.

ART AND PHOTOGRAPHY.

III.—UNDER THE SKYLIGHT.

BY G. HANMER CROUGHTON.

(Continued from page 195.)

ÆSTHETICS AND BUSINESS.—There is much to be learned by the photographic student, which, while it does not rightly come under the head of art, or art rules, it is necessary he should learn, in order to produce pictures which shall please his patrons and make them of more value artistically. And under this head I want to give the results of my own experience, and the experience of others with whom I have been connected during my many years connection with photography.

The æsthetics of photography is the aspect of it which appears the farthest removed from the trading. The artistic and ideal are opposed to the realistic and business aspects. These two should not, and are not, really antagonistic to each other, and yet at first sight it appears hard to reconcile them; in illustration, I will quote an experience at the Cincinnati Convention:

Mr. Seavey, with a very excellent model had been giving a demonstration of posing under the skylight for over an hour, to a large audience. He had been arranging this model (in the most approved æsthetic costume) into numerous poses, walking back to gaze upon each alteration as made. At the meeting of the Chicago Photographers' Association, held at the Palace Hotel, the same evening, he said he hoped the time was not far distant when photographers would be able to get one hundred dollars for each photograph, and so be able to spend the whole day posing one sitter. This is the æsthetic side, now for the business side.

On the conclusion of the demonstration

as the crowd of photographers were dispersing, I heard one photographer say to another, "Well, what did you think of it?" The reply was, "Well, I was thinking, as he walked backward and forward, pulling a fold here, and crooking a finger there, that if I was to do like that under my skylight I should fidget my sitters to death long before I could get to the exposure." The other (who was a good specimen of the western boy) said, "I was thinking that I should like to get that chap into my skylight, on a market day, and set him to make positions for some of the fat Irish Biddys I get. I expect he would get a crack over the head if he came around them with any of that fooling." Here are the two extremes exemplified; now to reconcile them.

The photographer should train himself in every possible way, and at all times, for his work under the skylight; *but when there, should do his work quickly, and with as little fuss as possible, putting into practice his study made outside.* You may ask how he is to study outside his skylight? By getting points on photography from good pictures, and studying out the rules on the linear composition glanced at in the preceding chapter; by watching the natural position assumed by people in your own home; in the cars, everywhere, in fact, where you meet people unprofessionally, you can get many hints which will be very valuable to you, and once you commence this outside study, you will instinctively judge every positive by the rules of composition, as soon as you see it. In this way you will soon be able to judge, in a few seconds, when you are with your sitters, what you can do with them. How many times I have seen sitters assume naturally, a position which I have seen it was characteristic with them, and have posed them so before the background, and succeeded in getting a portrait where both face and position were recognized as characteristic of the sitter.

In the every-day work of a photographic studio, how few people there are whom you can mould into graceful positions; very few people are plastic models, and it is only now and then that you can get a sitter to enter into such sympathy with you in your work

as to enable you to get something out of the ordinary run of portrait photography. When you get such a one you can afford to fool around (as the western boy called it), and the sitter entering into the spirit of the work, will not tire; but with the majority of sitters any prolonged attempt at arrangement or posing, makes them lose patience, and so the expression suffers. It is necessary, therefore, that the photographer having learned what to avoid, and what to aim for in the arrangement of lines, should do what has to be done quickly, and as quietly as possible, bearing in mind that ordinary people do not care for fancy positions, and even if they are pleased with such a position at first, it is only for their dearest friend to hint that it looks just a little affected, and they will come back for a resitting.

In portraiture the best positions are always the simplest. Sir Thomas Lawrence, the great English portrait painter of the last century, was celebrated for the ease and grace of his positions, yet he never painted a portrait with the head turned in the opposite direction to the body. Sometimes the figure is full, with the head slightly turned; in others the body is turned slightly to the right or left, and the head turned in the same direction, only more turned than the body; in others, again, the body will be slightly turned from the shoulder, and the head looking full to the front; but in all, the body and head are turned in the same direction, *but one is turned more than the other.* In none will you find the body turned in one direction and the head in another—a practice which some photographers have carried to such an extreme that the head looks almost as if it had got such a turn that it would be a difficult matter to get it straight again.

I was speaking in condemnation of such a position at the last convention, when a photographer present said "it gave action to the figure." But in a portrait action is out of place, particularly in a bust or three-quarter figure. Repose, not action, should be the aim of the photographer in making a portrait; and repose, both in expression and position, is impossible with a constrained position of the head; for violent action, which puts the head into directly

opposite position, to the body, will naturally give constraint to the expression.

To get a natural expression (which, as a writer on art has said, is the soul of a portrait) the sitter must be at ease, both in mind and body; therefore, not only must the position be easy, but the surroundings in the skylight should be homelike and comfortable.

I cannot understand why so many skylights used by photographers should look like a receptacle for old worn-out stage properties and scenery.

Scenic background and accessories are necessary, but I see no reason why the skylight should not be furnished like an ordinary parlor, and made as comfortable, and as near like home as possible, and the accessories should be carefully chosen as *accessories*. That is, they should be chosen with regard to the linear composition, and as helps to the figure; above all, avoid those wonderful pieces of photographic furniture which can be used for everything, from a pedestal to a pianoforte, and yet not look like any of the things it purports to be.

Before quitting the subject of linear composition, I will say a few words on the subject of lenses and the position of the camera, as they have a natural effect upon the lines of the picture.

In some galleries there is not distance enough to enable the photographer to use lenses of a proper focal length. Short focus lenses, or rather to be more correct, *the improper use of* short focus lenses, is a great cause of distorted lines in a photograph, and the position of the camera can exaggerate that distortion. For instance, take a full-length figure with a short focus lens, and have the camera level with the head, and the resulting picture will have the head exaggerated, while the lower limbs are shortened and diminished. A large head taken with a short focus lens will have the point of the nose and every other prominent portion of the face enlarged, and the ears and other back portions diminished. If you must use a short focus lens for full-length figures, have the camera low, and if you have to tilt the lens downwards, use the swingback to counteract the distortion. In concluding this portion of my subject, I

would advise the photographic student to cultivate a quiet, assured manner, and to go about the work of posing, focussing, etc., as if he knew what he was about, and was going the shortest way to get it. Any appearance of indecision, which would be shown by fussy alterations in the pose, would make the sitter lose confidence in his ability, and that would be fatal to success, for the photographer, like the doctor, can succeed best when his sitter (or patient) has perfect faith in him.

Now, having kept my student waiting in the skylight, I will proceed to questions of light and shade, and lighting the sitter, in my next.

A GOOD NOTICE OF PHOTOGRAPHY FROM THE GLOBE O' THE HUB.

NOT very long ago it was a rare thing to see our art noticed by the "secular" press. Now, one rarely takes up a newspaper without seeing some kindly allusion to photography or its work. The following from the *Boston Globe* is an instance and shows real appreciation at the centre of our country:

"In no department of art has there been greater progress during the past twenty years than in that of photography. From insignificant beginnings, and in spite of ridicule and criticism, it at once made rapid strides, which have been greatly accelerated during the past decade. It has climbed upward step by step, developing and improving until it has become a right-hand helper in almost every branch of the world's art and industries, rewarding the persistent determination and unwavering faith of its originators and promoters, until to-day it stands preëminent in the annals of the world as one of the grandest professions, second to none in usefulness, influence, and value. It is not only a pleasurable agent in the production of likenesses of friends and the outlines of beautiful scenery, but it is an important and valuable agency in the illustration of scientific and mechanical work, the mysteries of surgery, and the department of justice, rendering the speedy detection of criminals almost assured.

Extensive factories have been erected in

various parts of the world for the manufacture of photographic apparatus and supplies, and the demand for such goods is "simply immense." The inventive genius of man is bringing to the front every year many new and valuable improvements in this line. The popularity of the photographic art as a diversion is greatly increasing, and to-day, in thousands of refined homes, there can be found the "camera" and the "tripod," familiar articles of use and recreation, not only for the young, but adults, even persons of large means and considerable leisure, including tourists on their journeyings among the attractive locations of the old and new worlds. The household portfolio and home walls are adorned with personally made photographs; the army of amateurs is rapidly enlarging in all civilized countries, and particularly so in the larger towns and cities of the United States; clubs are being formed for the promotion and advancement of the new diversion.

Photography, with its instructive and refining influences, far supersedes, as a diversion even, the rough field sports of the present day. It elevates and broadens the character by its intercourse with and study of art and nature; it strengthens and improves the mind by the exercise of its best elements; "it amuses as well as instructs;" it promotes the health by out-door employment; in fact, it is *the leading and best diversion in the entire list*. It certainly opens up a new field which has only begun to be developed. It is one of the most enjoyable summer vacation recreations that can possibly be instituted.

The ready-prepared plate now in common use has enabled the worker to avoid stained hands, soiled clothing, and uncertain manipulations. The light, strong, and compact apparatus supplied by the manufacturers at a surprisingly low price, has made the burden of carrying easy; so easy that a camera may be carried in the hat or within the folds of a lady's coat."

LEXINGTON, KY.

I read it because I find it the best of all the periodicals in America, and the only one which can be compared with the best of the European contemporaries.

JAMES DARELLA.

HOW WE TAKE WITH "ARTISTS."

PHOTOGRAPHY was, for a long time, a great trial to "artists." It is yet, to some of them, so that every time its name is mentioned everything is "literally painted red," while to some others it is a welcome helper. Then there is a third grade the Knights of which use it on the sly in their labor, but are always ready to *strike* at it openly.

Among these last is the *art* editor of the *Daily Times*, of Philadelphia, who in his Sunday edition invariably gives us a very valuable and interesting column on "Pictures and Painting."

The following appeared in the said column March 28th.

"No one who has paid close attention to recent art work, when at home or abroad, can have failed to remark the effect of the use of photography upon a large part of the work exhibited. This is generally very pernicious. In the hands of a person of judgment and knowledge the camera can be made to be of great service. He will use it only to make a record of facts which he could equally well obtain with a pencil. He uses the camera for rapidity and to supplement his other studies. But when the lazy or ignorant undertake to work from photographic studies, as so many of them are now doing, the effect is at once apparent. The sharply contrasted lights and shadows, the distortion of features or of limbs, the way in which unimportant details often come into prominence while the vital points are slurred over, because accidentally hidden when the exposure was made, all these betray at once the source of the artist's inspiration. Let it be set down as a rule that no one should use a photograph who is not perfectly capable of getting on without it. In general a pencil sketch made in half an hour will be of more value to the artist than any photograph he may get, because while he is sketching the object, its character, its color, its generalizations, are fastening themselves upon his memory, and his sketch will bring them all to mind again when he proceeds to use it. Not so with the photograph. It reveals nothing to him but what he there sees recorded in dead black and white; it

gives no play to his imagination; it rather belittles whatever ideas he may have received from the casual view of the object. Who that was ever entranced by the beauty of any living thing has failed to feel a slight contempt for the poor presentment made of it by means of a silver print.

"These remarks are suggested by a most conspicuous example of the bad effect of working from the photograph, upon a capable and promising artist. Let any one compare Mr. Pennell's contribution to the *Century* for March with his earlier work, and he will not doubt for a moment that nearly every picture was done from a photograph, and most of them without the slightest attempt to disguise the fact. They are drawn hurriedly, with little judgment in the selection of the thing to be drawn, or of the point of view, and none at all as to the adaptation of the line and the means to the expression of the subject which distinguished Mr. Pennell's work when it was done directly from nature. But this artist does not stand alone. A large proportion of the living Frenchmen use the camera, with more or less caution, among whom Gerome is most conspicuous. These call themselves Realists, but their realism seems like the accurate portrayal of a dead body, out of which the life has flown. The life can only come by direct contact with and by drinking in the spirit of the large world of nature. The spirit quickeneth, and it comes not through mechanical contrivances, but directly into the soul of man."

And this in the same on April 4th.

"The Artists' Fund Society of Philadelphia this year celebrated the fiftieth year of its existence and published a volume of pictures by its members, the entire edition of which was sold at Christmas time with a handsome profit to the benevolent fund of the society. At the annual meeting held last week the treasurer's report showed the affairs of the Society to be in a flourishing condition, and he was ordered to invest some cash which was on hand. The object of the Artists' Fund is entirely benevolent and for the cultivation of friendly feeling among members of the profession, and it now includes nearly every artist of acknowledged position in the city. No ladies, how-

ever have as yet been admitted, and it is a wonder they do not organize a society of their own, for they are almost as numerous in the various branches of art as the men, and they must certainly feel the same need of friendliness and sympathy. Several new members were admitted to the fund within the year and only one death occurred, that of young Mr. Bonfield. All the officers were unanimously reelected, namely: J. L. Williams, President; George C. Lambdin, Vice-President; Samuel Sartain, Treasurer; and F. DeBourg, Secretary. The Society meets at the houses or studios of the members, and these meetings are generally delightful affairs.

"The meeting this time was held at the residence, in Germantown, of George B. Wood, the landscape painter, who of late has achieved such success in photography and who made a display, with the aid of a calcium light and a lantern, of a selection of the pictures made by him. Many of these were of great beauty and elicited hearty applause from the artists assembled, some of whom declared it the most beautiful show of the sort they had ever seen. The views made in Germantown and along the Wissahickon were quite equal, in beauty and picturesqueness, to any of those in any part of the country or in Europe, and the groups of figures, especially those of darkies in New Jersey, were thought to be especially admirable in grouping and as exhibitions of character."

This is all very good. It shows that the editor is sure he hates our art one week and the week following he thinks he likes it. This is growth. But then he changes like—paints, when you mix 'em.

We wish we had a society with a mission like the "*Artists' Fund*," and we *will* too just as soon as the *Times* is good enough to change the head of its column to "*Pictures, Painters, and Photographers*."

We believe it is coming, and such men as Mr. Amateur Photographer, G. B. Wood, are hastening it.

We feel as though something was missing when the P. P. is late making its appearance.

M. & A. K. A. LIEBICH.

PRACTICAL POINTS FROM THE STUDIOS.

THE use of iodide of starch places within our reach one of the most powerful reagents known, and by its aid it is possible to discover the slightest trace of hypo. But as solutions of starch do not keep well, the photographer who is not accustomed to analytical operations does not prepare them, and for this reason does not seek, if hypo exists in his chemicals, as he would do had he always at hand and ready, the solution of the reagent. Recently a method has been given to make a permanent solution of starch and iodide of potassium. Five parts of starch are placed in about fifty parts of water, then, after mixing, add twenty-five parts of a solution of potash (one part of potash for two of water); the solution now forms a gelatinous mass. Five hundred parts of water and two of iodide of potassium are then added, and the whole raised to the boiling point, agitating strongly, and the solution becomes clear. After cooling filter.—*Revue Photographique*.

It has been proposed to use pyrogallie acid to discover the presence of nitric acid in water. Here is Mr. Curtman's method: Dissolve a little pyrogallie acid in the water to be tested (one milligramme for one c. c.), and drop ten to twelve drops of sulphuric acid so that this last forms a layer separate from the pyrogallie acid. When they are placed in contact, if nitric acid is present, a yellow discoloration is seen, and in this manner it is possible to discover the presence of one milligramme of nitric acid in one litre of water.—*Revue Photographique*.

To wrap up dry plates paraffine paper is excellent, and, moreover, cheap. If one per cent. of salicylic acid is dissolved in the paraffine a still better result is obtained, as it is then certain that there is no dampness.—*Revue Photographique*.

ON THE FERROUS OXALATE DEVELOPER.

—1st. After having been used the solution should not be thrown away, but placed in a corked bottle (filled up to the cork), an excess of tartaric acid being added, and exposed to full sunlight. This developer thus

treated is very suitable for overexposed negatives.

2d. To preserve the developer, if it is made in two separate solutions, it suffices to add to the solution of sulphate of iron a trace of sulphate of copper, and to keep it in well-stoppered bottles.—*Paris Moniteur*.

MAKING A GRAIN FOR ENGRAVING.—

This grain is produced either on a film of bichromatized gelatine or on one of gelatino-bromide, by means of a reticulation. For films of bichromatized gelatine, the plate, coated as for printing with fatty ink, is dried at a low temperature, 21 C. (70° Fahr.), exposed under a negative, washed with great care, then plunged into a mixture of sulphuric acid 2 grammes (31 grains), and water 310 grammes (10 ounces), for thirty minutes. Wash in several waters, the plate being drained each time, and place in a saturated solution of alum for fifteen or twenty minutes, then repeat the washing. The plate is now placed in a dish containing water heated from 32 to 38 C. (89° to 100° Fahr.), just enough to cover it. At the expiration of ten minutes the plate should present a uniform mat appearance; this is the time to withdraw it and plunge it into cold water. For gelatino-bromide films operate in the same manner, except as regards the exposure and the development. If a grained negative or transparent print is wanted, it is best to give a rather longer exposure and develop rapidly to obtain much detail without too much density. Different grains are obtained by adding to the acid mixture other acids, such as citric, tartaric, nitric, chlorhydric, or in mixing the acid with an alum solution, and by varying the time of contact. Great care should be taken to have the film of equal thickness, otherwise the grain would be unequal. A thick coating gives a stronger grain than a thin one.—*Paris Moniteur*.

TO PREVENT COCKLING OF MOUNTED PRINTS.—The cockling of photographic prints may be avoided:

1. By pasting on the back of the cardboard paper of the same nature and size as the photograph, and drying under pressure.
2. By steeping the photograph for a few

minutes in a bath composed of glycerine one part, water two parts, and hanging up to dry.

For the paste use water 60 parts, starch 10 parts, glycerine 10 parts, phenic acid and alcohol a few drops. Dry in the air.—*La Nature*.

A LIQUID TO DISSOLVE THE PRUSSIAN BLUE COLOR OF PRINTS MADE ON PAPER WITH FERROPRUSSATE AND CYANOFER.—Make the two following solutions :

I.
Oxalic acid 10 parts.
Water heated to 50° C. (122° F.) 70 "

II.
Caustic potash 12 parts.
Ordinary water 30 "

When the two solutions are finished they are mixed and shaken ; after several hours of repose, they are then decanted to be used as needed.

This liquid allows the use of the blue prints with an iron base for the process called "photo-calque," described in this work, page, 109, 1884.—*La Photocopie of M. Fisch*.

USE OF VASELINE.—Our honorable colleague points out the use that he has made of vaseline to render the surface of his glass plates more easily coated with the emulsion. Before coating he rubs them over with a little vaseline.—*M. Andrea*.

A PROCESS FOR REMOVING A GELATINO-BROMIDE FILM FROM ITS GLASS SUPPORT.—The cliché, developed and fixed, is plunged into a solution saturated, when cold, with ordinary alum, to which has been added about its own volume (the exact proportion does not seem important) of a highly concentrated solution made, without the aid of heat, of citric acid. Soon the corners turn up, then with the finger remove the film. When well washed a slight enlargement is produced ; a prolonged washing brings back the image to its original dimensions ; if, on the contrary, a maximum enlargement is desired, a few drops of the citric solution mentioned above are added to the water in which the pellicle floats. Nothing now remains to be done but to rinse a few times, and spread on a glass plate. Too frequent washing or long maceration in water con-

tracts the pellicle. After desiccation, strengthen vigorously with mercury, and obtain by transparency a new print to be enlarged in its turn, and so continue the operation.—*M. Izarn in Paris Moniteur*.

PHOTO-ZINCO-GRAPHIC PROCESS.

WE have here a process for reproducing drawings of all kinds, in wood, copper, or steel engravings, etc., from which it is possible to obtain by means of photography, negatives intense and reversed. The very fine work upon steel or copper, such as pen drawings, should be slightly enlarged to give good results.

Here are the principal advantages of this process :

1. It permits of the reduplication of copies without limit.

2. It is possible to obtain a result sufficiently strong with fatty transfer ink, without any friction or strengthening, such as is necessary with other processes.

3. A plate may be prepared in half an hour, including the making of the negative.

The reverse negative should be made on a perfectly plain plate, so as to get the nearest possible contact with the zinc plate. To obtain a good result it is necessary that the negative should show every line and every point with the greatest sharpness. As I suppose every photographer may perhaps not be familiar with the mode of making the negative in question, I will give some explanations on the subject. The principal thing to which attention should be called, is the exact time of exposure. If the exposure be too long, the delicacy will disappear in the development and in the strengthening of the negative. As a general rule, the development should be stopped as soon as the image appears distinctly and with all its details, after which the plate is washed, fixed with cyanide of potassium, and then again thoroughly washed ; afterward the following solution is poured on the plate, on which it is allowed to remain until the pellicle becomes almost white :

Sulphate of copper . . .	1 ounce
Bromide of potassium . .	1 drachm
Water	8 ounces.

after which the plate is thoroughly rinsed and plunged into a solution of one part of nitrate of silver, to ten parts of water. The plate instantly becomes black. If upon the application of the sulphate of copper, the fine lines should fill up, it is because the negative has been overexposed. If the exposure has been good, all the white portions (of the paper) will be opaque, whilst all the lines and outlines will be perfectly transparent.

The negative finished, take a well-polished zinc plate of the required size, which is again repolished with finely powdered pumice stone and water. After washing the plate in clear water in a dark room, pour the following solution on the zinc plate whilst still damp: Place the white of an egg, beaten to a froth, in six ounces of water, to which add thirty grains of bichromate of potash finely pulverized, which are allowed to melt; then filter the whole. The first quantity of the solution poured on the plate is thrown away, but the solution used afterwards is returned to the bottle to serve again. The plate is dried by holding it by one corner, inclined over an oil lamp or gas jet, care being taken, however, that it shall not become heated. When it is dry and cold the plate is ready for exposure. Now place the negative, the front in contact with the prepared zinc plate in a pressure frame similar to those used by photographers. By means of springs a good pressure is obtained so that the negative adheres closely to the zinc plate; then expose the frame to the light from two to four minutes according to the nature of the work. It is preferable to make the exposure in full sunlight. The frame is now brought back to the dark room and the zinc plate rolled with a good lithographic roller, finely grained, with good transfer ink not too thin. Fatter the ink, better the result will be.

After having inked the plate in this manner it is placed in a dish filled with clear water, and the superfluous ink on the non-exposed parts is removed by means of a cotton cloth well soaked in water. This should be done very slowly and carefully, giving to the hand a motion in small circles commencing at the corners, advancing slowly over the whole surface, as a too rapid

motion would partially destroy the sharpness. If the time of exposure has been correct, the image will develop itself easily; if there has been overexposure the ink will stick to the plate, and cannot be easily removed, which offers more or less danger of spoiling the work. If the time of exposure has not been sufficiently long the result will certainly be defective, especially in the plates that have great delicacy. In both cases it is far better to repolish the plate with a strong solution of potash and finely powdered pumice stone, wash in water, and begin the operation anew.

By careful attention to what has been said and a little practice, the operator will soon be able to determine the necessary time of exposure. After having removed the superfluous ink, the plate is cleaned in water and dried by means of heat. When cooled it is dusted over with finely powdered rosin, well rubbed, and the excess removed. The plate is then heated until the rosin begins to melt. This is shown by the slightly darker tint of the plate; after engraving, the plate is again inked, dusted with rosin, heated, and the operations continued until the necessary thickness is obtained.

HOME PORTRAITURE.

MR. W. ADCOCK recently read an interesting paper before the London Camera Club, on this subject. He said:

I find nothing more easy, with a proper lens, than this class of picture. I use the Dallmeyer's wide angle rectilinear, and am such an extravagant fellow, that I have three of them, of consecutive size. I think I should be as well off with one only.

The points to observe in these pictures of interiors are:

1. A good summer light, and a time of day when the sun does not enter the room.
2. Plant lens at window end.
3. If other windows are at sides of the room, subdue light from them by blue tissue, or linen blind, or muslin curtains.
4. For sitters, select those who can maintain pose five minutes. Give the easiest chairs and the most supporting positions to those most shaky.

5. Try the largest fixed stop which will give good definition. If models are staunch, of course take a longer exposure and a smaller stop.

6. Focus on extreme end, and then give two turns of screw outward—this, without destroying definition at far end, assists the near objects.

7. If you have gas, light up dark corners with it; if not, stick lamps about. The help may be slight, but there will be help.

8. And important—be patient in developing.

Of portraits I have little to say, and cannot dispossess myself of the feeling that to many here, if not to most, I am telling that six and four make ten, that your practice of these things is probably far better than my own. Then again, let me plead for what is desirable—that you should do more of it. Land and seascape are good, but even in your landscapes let figures enter. I fear I am hypercritical, I see so much of extensive view, of foreground, middle and extreme distance, that I long to see who will exhibit a dilapidated hovel standing in a field, with a few calves around it. And this, perhaps, varied by a girl feeding a couple of them from a pail. For single figures in the sitting-room, I use a portrait combination. I place the sitter for the light to fall on one side of the face, and I use a clothes horse and a table-cloth to reflect light on the shadow side.

If a wall in the room did not give me a background, I should hang up something for one. By this I mean disregard everything else to get the best lighting. Now, in my opinion, all success lies in two words, "Reflector, Reflectors." With the aid of these you may get charming effects; without them you may expect soot and white-wash. Manipulation, however important, is only one part of portraiture. I often wonder whether other people are sick as I am of the regulation portrait. See the heads of twenty men taken on a day, and except in few instances, where operators are artists, you will see the same pose, the same lighting, the same egg-shell texture. The other day I saw a book with the heads of sixty amateur photographers. More than half were taken by professionals, but

amongst those that were not were a few that, in my opinion, beat the others hollow.

THE OPEN CORNER.

CURIOUS OBSERVATION OF DR. BOUDET. —We have here some strange facts, and at present difficult to explain. These facts will perhaps give rise to new applications either of electricity or of the sensitive photographic films.

The learned doctor, in his studies relating to the condensation of static electricity, wished to reproduce by photography "the method of scientific vision which is now used to register all scientific observations," the sparks that he obtained between two metallic cylinders placed at a certain distance from each other. He thought the camera might be dispensed with by producing the electric spark in a completely dark room, over a sensitive plate. This was the case, but the cylinders placed at the extremity of a gelatine plate being higher than the sensitive film, the spark was produced between the two metallic extremities at a certain distance over the film; the impression was consequently diffused, lacking sharpness. This is easily understood. Dr. Boudet de Paris endeavored to bring the spark as near as possible to the film, and the idea suggested itself to him to use two five franc pieces instead of the two cylinders. These two pieces of metal being flat, the spark produced between them must necessarily be very near the plate, giving greater sharpness to the plate; this was the case. But to the great astonishment of the experimenter the image on each of the two pieces in contact with the sensitive film was found to be reproduced on the plate. Struck by this strange fact, he determined to operate without the production of light; one of the pieces was suppressed, the electric discharge was produced without sparks, and the impression was the same as before. The light due to the electric spark had therefore nothing to do with the case. Another experiment was then made, doing away with all immediate contact, then with a seal engraved in intaglio, which gave a still finer image.

Dr. Boudet de Paris, continuing his experiments, used some metallic sheets having lines traced on the back with ink, and finally

an ordinary photograph, the back of which had been covered with a sheet of tinfoil. In all the above cases impression was made under the action of an electric discharge; to obtain these results it is necessary to use an electric machine of great power. Here we have a new field of research yielding results the precise nature of which cannot yet be indicated.—*M. Thouroude.*

REMARKS ON THE INSTANTANEOUS PROCESS IN TRAVELLING.—The author of this interesting communication recently made a trip to Canada taking with him a number of portable outfits which he frequently used, as is shown by the four hundred negatives that he brought back with him, all but six of which are instantaneous views. He advises the use, for near objects, of the camera with two lenses, one for focussing, and the other for reproduction. One of the objectionable features observed was in the spiral spring of the stop, which being made of steel became rusty at sea. This would not have happened had it been nickel plated, or simply greased with vaseline—a point for manufacturers. Another still greater defect was that the instrument is too *photographic* in appearance.

M. Londe failed to reproduce some animated groups because some of the members had their attention attracted by the sight of the instrument. No surprise was therefore attainable. It ought to be possible to make a photographic picture unknown to all. Nothing easier. Use a black bag having a hole through which the lens passes. This bag is carried by a strap around the neck like a fieldglass would be, and when an animated group is to be taken the instrument is seized by the handle and rapidly pointed to the central point in view. To avoid focussing at the time of reproduction, the focus is kept at a constant point, so that the definition is sharp, starting at ten yards.

In terminating his explanations, M. Londe remarked, why should we carry with us bulky and heavy outfits? If, for example, the prints had been 13 by 18 centimetres, or 18 by 24, would it not have been necessary to reduce them to the size of 8 by 8 in order to project them on the screen enlarged to more than a square metre?

NEW COPYRIGHT LAW IN GREAT BRITAIN.

THE new Bill (backed by Mr. Hastings, Mr. Gregory, and Mr. Agnew) to amend the law of copyright in works of fine art and photographs, was issued on Saturday. So far as photography is concerned, it is the most comprehensive attempt to deal with the subject which has yet been made. We first have a definition of "publication," which in the case of engravings or photographs is to mean the first act of offering for sale, of delivering to a purchaser, of advertising or exposing as ready for sale to the public, or delivering at Stationers' Hall a written request for registration. Clause 9 inserts photographs (made without infringing any copyright) with a copyright for a term of fifty years; the copyright to belong to the maker of the negative where the photograph is an original one, and, where a work of fine art is copied, to the owner of the work copied. In cases where an assistant is employed to make the negative, the copyright still belongs to the employer.

Clause 10 deals with the exhibition of photographic portraits, and it is laid down as unlawful for any person, whether he owns the copyright therein or not, without the consent in writing of the person for whom the work was executed, to sell or exhibit any copy of such portrait. The penalty for the infringement of such clause is the delivering up and forfeiting of the negative and prints, and for this purpose a search warrant may, if necessary, be granted. Clause 12 contains a somewhat novel but noteworthy point. It lays down that if a work of fine art or a photograph in which there is copyright happens to be an object in any scene, the copying of such work or photograph merely as forming part of the scene shall not be deemed to be any infringement of the copyright, unless the special purpose for which the scene is copied is the exhibition of the copy of the copyright work. Thus an interior may be photographed, though on the walls are hanging copyright pictures. Clause 14 puts the punishment for infringing the copyright in a photograph or painting at a sum not exceeding twenty pounds for every copy, all

costs, and double the full price, if any, at which copies may have been sold. Owners of copyrights are consequently well protected. But this is not all, for they may in addition proceed under Clause 15 against the offender and recover damages, notwithstanding that penalties may have been already recovered.

Under Clause 20, no person may attach to any photograph or negative a name, initials, or monogram with intent to produce belief that the photograph was executed by some person who, in fact, did not execute it. Nor must photographs be knowingly exhibited in such a manner as to lead one to suppose that they were executed by a person different from the real operator. Neither must persons who make alterations in negatives offer them for sale as original negatives. The penalty for the infringement of this clause is the same as for infringement of copyright. Hawkers of pirated copies are, by Clause 23, bound under a penalty of five pounds to give information of the name and address of the person from whom he obtained such copies.

Lastly, a "Register of owners of copyright in engravings and photographs" is to be kept at Stationers' Hall. There are several other clauses, but these are of minor importance in comparison with those we have summarized, and on the whole it will be seen that the Bill is a most exhaustive one. Whether it will be more fortunate than its predecessors, and find its way into law, remains to be proved.—*News*.

PHOTO. FACTS AND FANCIES.

FROM the many documents which come to our hands, we make some excerpts in order to show how business is pushed in our larger cities. Some of the means resorted to are novel enough, but also hard enough. Choose the best and make the best of it. We begin low:

PHOTOGRAPH STUDIO OF ART,
Broadway, N. Y.

"I am now offering to the public a price-list of Life-size Portraits in Oil, Free Hand Crayon, Free Hand Pastel, Ink and Water-Color.

"This work cannot be excelled in price or

finish. A Life-Size Oil Portrait on Canvas, with Elegant Gilt or Bronze Frame, or a Life-Size Free Hand Crayon, with Massive Gilt or Bronze Frame, or a Life-Size Pastel Free Hand, with a Beautiful Gilt or Bronze Frame, or a Life-Size Photograph Worked in Ink, with Fine Gilt or Bronze Frame, or a Life-Size Photograph Colored in Water Colors, with a Fine Gilt or Bronze Frame, either made from Life or Copied from any Small Picture. Price, complete, \$15. Old price, \$50.

"The reputation of our work is so well known by the public, that customers may feel confident of receiving satisfaction."

This circular is scattered over the country through the mails to catch all. Imagine yourself the recipient and then read:

A LIFE-SIZE CRAYON PORTRAIT, WORTH \$25,
MADE FREE OF CHARGE.

——— CRAYON PORTRAIT SOCIETY,
Brooklyn, N. Y.

"DEAR SIR: We are now executing in your city a number of Life-Size Crayon Portraits, entirely free of charge. This we find to be the best means of advertising our work and thus bringing our name before the public.

"Our Crayon Portraits, as will be seen below from the many references, are of the finest made in the country; their perfect resemblance with the model, artistic treatment, and beauty of finish, are the admiration of all those who chance to see them; yet they will be of very little use to us unless made known to the public at large, and it is for this reason that we send you the enclosed Coupon, entitling yourself or some member of your family to one Portrait entirely Free of Charge.

"The only favor we ask of you for this liberal offer is, that you recommend our work to your friends, and also give us your order for the framing of your Portrait.

"The Crayon Portrait, when completed and framed, will be sent to you, carefully boxed, C. O. D., with the special privilege of examining the Portrait and Frame before paying for the latter."

This is followed by a large amount of self-

praise, but you have the offer and see the "plan."

"No order will be noticed unless accompanied by the enclosed Coupon, because we reserve to ourselves the right to do a Life-Size Crayon Portrait only for those to whom we send it.

"All communications and orders must be addressed to

———, *President,*
Brooklyn, N. Y.

"NOTE.—A cabinet photograph of the different styles of frames, with full description of materials and prices, will be sent on application, by enclosing a two-cent stamp."

Here is something more manly and to the point, and is the true way of meeting Cheap-Johnism:

GIFT ENTERPRISES.

"Circulars are being freely distributed in this and other cities by parties claiming to make of any one presenting one such circular a handsome 'Crayon' Portrait Free of Charge—that is, you receive the so-called Crayon, which is nothing more than a reproduced Photograph slightly rubbed over with charcoal, 'as a Gift.' But they fail to tell you that you are expected to pay for the framing many times its value, and the victims, being blinded by what they are led to believe is a great gift, walk innocently into the trap, realizing only too late how they have been duped, when, for the same expenditure in some creditable Gallery they could have obtained a picture that they would not be ashamed to take the second look at. Fortunately for the public, all these catch-penny gift concerns are but short-lived, as the law provides for enterprises of this sort. As the days of the so-called gilt-frame-gold-watch-chromopainted-by-the-yard pictures have had their day, the caricatures in the shape of cheap pictures must give way to those of merit.

"We do not profess to sell Portraits that are produced at a cost of from fifty to one hundred dollars for twenty or thirty dollars, but we do say that we shall be able to furnish better and more artistic finished work at a less price than any other establishment. We have Life-Size Crayons for \$25 that will surprise you in style and finish; the

same size, finer, and more elaborately finished by a different artist, at \$35 to \$50.

"In Pastel and Water-Colors we have some beautiful effects at prices that are moderate for the quality of the workmanship. Somehow, the people of Philadelphia have an idea that our reputation for excellent effects in 'Photography' has placed the price beyond the reach of the majority of the public. We would say that a visit to our galleries will demonstrate that our prices are no higher and in many cases lower than in many other places."

GILBERT & BACON,
820 Arch St. and 40 N. 8th St., Philada.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

DEAR EDITOR: I have lately (in both senses) subscribed to your excellent semi-monthly through my stockdealer, and herewith try your good nature with the following questions for "Queries, Conundrums, and Conclusions."

1. Am using plain silver bath fifty grain and slightly alkaline. I enclose print toned in a bath made up of carbonate of magnesia and a pinch of salt. After toning with a trifle more gold than usual, which caused prints to tone in about fifteen minutes, they looked nicely until ready to mount next morning. In drying—whether mounted or not—they gradually assumed the salmon color of the enclosed. Prints were washed as recommended in your *Photographics*, the hypo being made up with seven and a half ounces of saturated solution hypo to the gallon of water and made slightly alkaline with liquid ammonia. Time of fixing twenty minutes. Can you give the cause of reddening?

2. What is cause of spots on print No. 2? I use N. P. A. Pensé.

3. How large a hypo bath would you advise to fix at one time 100 to 150 cabinets?

4. What is the maximum number of sheets that should be silvered on a one gallon fifty grain solution before adding silver?

5. Would you advise the alum treatment given on page 224 of *Photographics*, or the lead water advised in note 263 on page 207 of same book for prevention of fading?

6. Should the lead water be used after the hypo and followed by the salt bath, or after the salt bath?

7. After making up toning bath according to formula on page 203 of *Photographics* should more gold be added before toning or is the first four grains sufficient?

8. How many sheets (18 x 22) will the above quantity tone?

9. How long can it be used?

PATIENCE TRYER.

WOONSOCKET, R. I.

Answers.

1. Print No. 1 is evidently not fixed. Your "modus operandi" is apparently all right, but a print would never assume such color if you had been careful in the fixing. Of course it would look nicely until the next morning's sun arose and turned its color. Perhaps the fault is in the hypo, or did you use something else by mistake?

2. Print No. 2 looks as if soap in alcohol had been applied as a lubricator, and that the alcohol was applied too freely, dissolving the aniline coloring, which would dry again in such spots.

3. A one and a half gallon fixing solution should be sufficient to fix 200 cabinets—about sixteen ounces of hypo.

4. About twenty-five sheets of paper can be silvered on a one gallon bath fifty grains strong, before strengthening.

5. We do not, in practice, use the alum treatment, as we do not find it necessary.

6. Neither do we use the lead water, depending for the elimination of the hypo on careful washing. If you use it, let it be after the salt bath.

7. The toning bath referred to as given in *Photographics*, should tone six or seven sheets of paper without any further addition of gold.

8. The rule as given allows one grain of gold to a sheet of paper, but by care one grain can be made to tone two or three sheets, according to the paper used.

9. It can be used indefinitely by pouring out into a bottle after using, and when wanted for use again decanting clear solution, adding fresh material as before. The sediment should be saved for refining.

DEAR SIR: If Anna M. Bank will soak the negative in alcohol, being careful not to injure the plate, the varnish will leave it. It is a delicate job.

A. G. N.

DEAR SIR: In answer to Mr. Townsend, of Willimantic, Conn., page 205, a negative put into a printing frame and a dry plate placed in contact and printed, will produce a positive or transparency and not a negative.

A. M. ALLEN.

POTTSVILLE, PA.

[We should like to hear from others as to this.—ED. Q. C. & C.]

DEAR SIR: In regard to the paper puzzle of M. N. C. (April 3, page 205) in your last issue I wish to say a word which may be of benefit to some benighted photographer who may be troubled with similar affliction. I use a bath fifty to fifty-five grains strong, made of melted ice, or pure rain water, and silver, to which is added carbonate of soda until there remains a little precipitate (which is carbonate of silver) in the bottom of the bottle containing the bath, and which is kept in a strong light when not in use. The bath will remain neutral as long as the carbonate remains in it, and by keeping it in strong light much of the impurities will be precipitated. Silver the paper not less than three minutes, as short silvering of the extra brilliant paper on a strong bath will result in weak prints, blisters, and a dissolving of the albumen in subsequent washings. Blot, then dry the paper by moderate artificial heat until the moisture is all out, but not bone dry, or the paper will not fume or print as well if dried too severely. In cold or damp weather place a hot brick in the bottom of the fuming box just before placing the paper in, use plenty of ammonia and fume from forty-five to sixty minutes; a longer time will do no harm. Let me say right here that if M. N. C. will return his paper to the fuming box the next time "spots" trouble him, and give it a thorough fuming I think the trouble will disappear.

Another important thing is, to have the paper in the right condition before silvering. I have tried several plans for moisten-

ing paper but none so satisfactory as I am now using: viz., I went to a tinsmith and had made a zinc tray 19 x 25 inches, three inches deep with a hinged cover which shuts over the bottom like a tin trunk cover. Across one end inside is a partition allowing about three inches of space in which is kept a wet sponge while the paper is placed in the other side, and accumulates moisture enough so that it takes the silver readily. *This is a good way, try it.*

For toning I use a plain gold bath neutralized with two parts of pulverized borax and one part of pulverized carbonate of soda. Can get any tone from warm brown to deep purple. After toning return the bath to a bottle and use about half of it next time, adding water to make up to the required quantity, and pouring the remainder of old bath into a jar where it can be precipitated at pleasure.

Wash the prints thoroughly before toning; do not redden with acid or salt in the wash water, but add a little salt to your toning bath each time, which will redden the prints sufficiently.

For fixing I have a large bottle filled with hypo and water, always with an excess of the crystals of hypo, so that I have a saturated solution; of this solution I take one part and of water six parts, fix fifteen minutes, then place the prints in a strong solution of salt and water for a few moments, remove them to a weaker one, then into clear water and you will have no blister to cause you to fall from "grace."

The solutions must be kept of nearly the same temperature, otherwise blisters may come. I have observed that fresh hypo solution prepared and used immediately will sometimes cause paper to blister, hence I adopted the mode given above.

H. C. WHIPPLE.

OLEAN, N. Y.

T. T. J. who complained of spots in his prints on page 231 of our last issue has discovered the cause of his trouble and reveals it thus:

DEAR SIR: I received your answer on March 17th in regard to spots on prints. In printing I have always used a piece of brown paper back of the print and directly

over the face to keep it in contact, I have stopped using it and find that I have no spots worth mentioning. I like the PHILADELPHIA PHOTOGRAPHER better than ever.

[Now who would have ever dreamed of the solution of T. T. J.'s trouble without seeing him work? Half the annoyances which occur are from some such folly as "using brown paper," etc.—Ed.]

DEAR SIR: Will Mr. Fellows kindly inform me what lubricator he uses to give such high burnish on the prints furnished in the PHILADELPHIA PHOTOGRAPHER? The picture in April 3d's issue, called "The Bride," has a lovely polish; what gets me is such burnish on prints mounted on such thin card board. As a rule, I can't get near as good a polish on thin boards as I can on thick ones. By answering you will greatly oblige

Yours, truly,

BURNISHER.

BALTIMORE, MARYLAND, April 5, 1886.

REFERRING the above to Mr. Fellows, he answers as follows:

This is a point on which some amateurs and professionals stick, as well as do the photographs, sometimes. Almost any lubricator will do; but we prefer the cleanest, cheapest, and easiest in application, and it is merely soap—white Castile soap. We apply it dry, by means of a block covered with Canton flannel, rubbing first over the soap, and then over the picture—covering every portion of the surface of the picture and card. But to secure a good polish do not allow your pictures to become too dry; keep them limped until burnished. This is not at all new. It has been in use for a long time.

C. T. FELLOWS.

DEAR SIR: Referring to the pleasant interview I had with you in your office last week, I am still somewhat in the dark over the toning bath, on pages 202-3, paragraph 258, in your Wilson's *Photographics*. I tried it with the enclosed results (the points first turned reddish, then black, finally dark slate, but never *chocolate* or blue). I was rather uncertain in knowing exactly how to mix the different chemicals. I am very anxious to get at that chocolate tone, and

would feel greatly obliged if you would kindly answer the following questions at your earliest convenience, as I intend trying some more prints during the present week.

1st. Do you mix bicarbonate of soda with chloride of gold alone, and if so, what quantity of former (in weight) to the latter, as apparently it cannot be made neutral by testing with litmus paper?

2d. How much (in weight) of bicarbonate of soda is required to be mixed with the stated quantities of acetate of soda and common salt?

3d. Do you mix each of the above two solutions separately directly into thirty-two ounces of water, or mix them well together before putting into quantity of water just named?

4th. When using the uranium, do you mix it with the chloride of gold and bicarbonate, or separately?

JAMES HOOD.

NEW YORK, April 5, 1886.

Answers in Bulk.

It is a difficult matter to form an opinion of an imperfect print—where the fault is in the manipulation. So many causes produce similar results. The sample sent us by Mr. Hood has the appearance of being a very old piece of paper. In fact, yellow with age; or else he has gotten some hypo into the toning bath. If the directions in *Photographics* are closely followed, in reference to the toning bath used, we cannot see why he should not get good results. We use bicarbonate of soda, a saturated solution, not by weight in grains; and in toning use about one grain of gold to the sheet of paper (18 x 22). The directions are laid down for mixing the solutions in *Photographics*—for which you get the formulæ—and there is surely no difficulty in following them. If you use ready sensitized paper, then you should adhere to the formula which accompanies it. The formula in *Photographics* is for regularly silvered paper.

IN answer to the query in your March issue, page 207, signed Anna M. Bank, the lady does not state whether the negative in question is a dry plate or not. But if it is, the placing of the same for a few minutes in a solution of chrome alum will cause the

albumen paper to leave the gelatine film; in fact, I believe that many a one varnishes his negatives for fear of the sticking, and therefore give my experience.

Further information, in regard to removing varnish from dry plates, can be seen in German Correspondence of your issue of December, 1885, page 394. Yours, truly,
S. KLUGHERZ.

COLUMBUS, OHIO.

CRITICISMS ON "OUR PICTURE."

FIRST QUARTER.

BY CHARLOTTE ADAMS.

THE six plates accompanying THE PHILADELPHIA PHOTOGRAPHER for January, February, and March, cover considerable ground in the field of reproductive processes based on the photographic idea. Three of these illustrations represent photography, pure and simple, and three serve to present important applications of photography to modern reproductive arts. It was a good idea on the part of the editor of THE PHOTOGRAPHER to recognize, as he has done, the important part now played in book-illustration by photography. New paths of discovery and practical knowledge are opening out every year, and photographic illustration, in one or other of its many branches, is rapidly driving the wood-engraver and his fellows from the book-field. It is curious to notice, too, the rapid growth of the pictorial idea in photography. Possibly the formation of amateur societies and the constantly increasing interest felt by painters in the art of photography, may have had something to do with its development on this side. Photography no longer means mere portraiture for schools and families. It is closely entwined with the highest interests of the world, in art, literature, and science. A photographer can no longer be considered progressive who does not extend his knowledge of his art beyond the limits of routine portrait work.

The three plates representative of pure photography accompany the numbers for January 2d, February 6th, and March 6th. That of January 2d, gives a delightful bit of child-life, which presents at once a portrait and a picture. This is a very excellent

piece of composition, especially as regards spirit and naturalness. The child's attitude is one of those gracefully uncouth positions, that little people instinctively take when they are entirely at their ease. The fear of the photographer is evidently not before this young lady's eyes, and the traditional canary bird has not been called into requisition to keep her quiet. The smiling, artless little face is full of charm. The hands and arms are posed with the art that conceals art. The light mass of the frock is well relieved by the dark background. It would be better if the frock did not form an angle as it does where it falls over the chair, although in view of the character of the subject, this is not as unpleasant a note in the composition as it would have been in the portrait of a grown person. The balance of masses of lights and darks is kept sufficiently even by the introduction of the books at the left of the foreground. It is possible that the photographer in bringing the child's frock down to an angle, had some idea of putting it into harmonious relations with the books. In this case, we must give him the credit of his intentions. The background accessories are in good perspective, well chosen and, best of all, are kept properly subordinated to the figure, while given due independent value. There is an agreeable sense of air and space in this composition. A neat little touch of accessory is the toy cat with its tail in the air.

The frontispiece of *THE PHOTOGRAPHER*, for February 6th, is clear and sharp in effect. It was a happy idea to place the mass of white formed by the child's figure in the middle of a space of darks. The photographer showed good judgment in not attempting to repeat the white in smaller masses, in accordance with conventional rules of composition. There is something very pleasing and natural about this plate. The pose and expression of the child are admirable. There is no trace of so-called 'photographic stiffness' in this composition. The arrangement of the toys is far from being artistic, but it is something better. The beloved objects are placed exactly as a child would place them. Children dearly love to put their belongings in a row. There is a touching naïveté about the

relative positions of these toys. The texture of the fur rug, the details of the dried grasses, and the surface of the jar are well given.

The first thing that strikes one in the landscape called "South," which accompanies *THE PHOTOGRAPHER*, for March 6, is its lack of breadth. A kind of littleness and insignificance of composition seems to be a factor of the panoramic treatment of landscape. We notice this in the works of many of our older artists, who select miles of country for the subject of a picture, and yet treat it in such a manner as to make it appear a mass of niggling detail. On the other hand, one of our younger artists will take a square yard of pastureland for his study, and will dignify and ennoble it by the breadth and simplicity with which he grasps it. In the picture before us, there is a great deal that is photographically and literally true. But it is not true in the higher artistic sense. The composition is belittled by too much detail. One is obliged to look twice at the plate in order to grasp its main points, and this is the surest test of artistic falsity. Artist or photographer should, first of all, give a truthful general impression of leading facts, leaving the details to be worked out. He should not, as has been done in this plate, develop the detail at the expense of the *ensemble*. An unpleasant feature of this composition lies in the large number of narrow white lines it contains—the only masses of light in a wide space of dark. This disproportionate arrangement of lights and darks might very easily have been avoided. A lack of saliency and relief is noticeable throughout the composition. There is a monotonous repetition of horizontal lines, and one cannot shake off the idea that this photograph was taken for a real estate agent who wanted a good view of property in the market. There is no excuse for the lack of interest in the foreground. It is precisely here that attention should have been paid to detail. The best part of the plate, as regards artistic effect and suggestion, lies in the trees, river, and mountain at the right. The river, with its reflections, and the overhanging boughs, forms a charming bit. The slope of the trees down to the cottage, following the curve of the mountain, presents a series of

agreeable lines, and the foliage of the trees is sharply brought out.

The photogravure given in the number of January 15, called "Study from Life," is described in the body of the magazine as giving a representation of the Mother Ship-ton of English popular tradition. But there was no need to give this plate a factitious value by attaching a literary interest to it. Its artistic merit speaks for itself. As regards the artistic side of this plate, it deserves great praise. We have here a genuine modern characterization. This fierce-looking old woman presents a type of American low life, such as certain extremists among our artists would be delighted to handle. The treatment is broad, verging on impressionism. The detail is not carried out far, but it is admirably suggested. Notice the large masses of light and shade which compose the head. The features are naturally strongly defined, but they have gained greatly in accent by the vigor of the treatment. The modelling of the face is highly suggestive. The hand and arm are handled with due appreciation of their subtleties of modelling and tone, and here the skilful distribution of the masses of light and shade has everything to do with the strength and delicacy of the effect. The white hair forms masses of light which are large enough and strong enough to balance the darks of the figure. The whites of the head, again, are supported by the light masses of the candle and the flame and the lower part of the figure at the right. It is seldom that any figure in a painting or a photograph shows as good an effect of masses as here. The excellent management of light greatly helps out the pictorial interest of the plate.

It is important to dwell upon the question of distribution and size of masses of light and shade, because upon this idea hinges the whole character of a picture. The last plate considered, "South," in spite of its many good photographic qualities, was reduced to insignificance, artistically speaking, by its neglect of the essentials of composition—masses. The "Study from Life," on the other hand, owes much of its value to the largeness of its masses and to their distribution in a judicious manner. The main principles of photographic composition

—what to do and what to avoid—are exemplified in these two plates.

"A Study from Themasses" is the witty title of the photogravure of a group of donkeys in THE PHOTOGRAPHER of February 20. Whoever took the original photograph, did so *con amore*, and was a friend to wild asses and to stalled ones. The characteristics of these interesting little beasts are very well given. The composition is attractive. The muzzles of the donkeys form masses of light seemingly on about the same plane, with the dark bodies of the animals making a background. The horizontal line formed by the donkeys' backs is broken by the ears standing upright. The prevalence of half tones gives a soft neutral character to the plate. The texture of the fur is well rendered, and the sunlight is truthfully given. There is a good deal of color in this plate, produced by the skilful gradation and combination of half tones.

Color is as strongly felt in black and white work as it is in so-called "color" work. Any one who does not credit this statement should visit an exhibition of the New York Salmagundi Club (Black and White). His doubts will be forever removed. The more color a photographic plate has in it, within the legitimate limits of black and white, the better.

The gelatine print which accompanies THE PHOTOGRAPHER for March 20 represents a marine subject, and is therefore appropriately printed in greens. This is a very interesting plate. The composition of the group about the boat, with the boat itself, tends to the horizontal, following the lines of the surf and the shore. The silhouette effect of the dark figures against the light water is good. The group is full of action. The surf is so delicately and precisely rendered, and at the same time in so free a manner, that the photograph resembles a well-painted oil marine. Mr. F. K. M. Rehn has exhibited landscapes very like this photogravure, and the late Francis A. Silva treated surf and coast lines in a way that resembled the corresponding points in this plate. The foreground, with its reflections of sky and figures, is one of the best parts of the composition. It is full of interest and suggestion. One seldom sees a

better gelatine print in monochrome than is presented here. This process is coming much into vogue for the illustration of books. It is very popular in France, and so far it has been employed by American publishers chiefly for holiday books, gotten up in imitation of French *éditions de luxe*.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

DERBY PHOTOGRAPHIC SOCIETY.—The monthly meeting was held in the Mechanics' Institute on March 3, Henry Bolden presiding over a large attendance of members.

The feature of the evening was the reading of a paper by Richard Keene on "The Past and Present of Photography." In the course of his paper, the lecturer said: "Of all the arts which have been created by man, and for the pleasure and benefit of man, not one has equalled photography in the rapidity of its strides or in its widespread influence. And though we may date the first steps in this great discovery to Porta, above three hundred years ago, when that philosopher discovered the camera obscura, and, still earlier, to the discovery of *Luna cornea* or 'horn silver,' as the old alchemists called chloride of silver, yet these early followers of the 'Black Art' got no further. They were seeking for the Philosopher's Stone, and the Elixir of Life, and in their search after these chimeras missed the greater good; their discoveries led to no practical result."

LONDON AND PROVINCIAL PHOTOGRAPHIC ASSOCIATION.—H. S. Starnes read a paper entitled, "The Formation and Development of the Invisible Image," and showed the results of experiments bearing upon the subject. Silver bromide on blotting-paper prepared in quasi-darkness was partially exposed to light; the whole was equally reduced under the action of an alkaline developer. The silver salt in question was also sifted over a moist gelatine film, twenty-five grains per ounce, and was equally reduced with alkaline developer. Silver bromide, emulsified in a one grain solution of gelatine, showed restraining action with a slight red fog; when, how-

ever, ten grains of gelatine per ounce were added, it protected the silver, and the reduction did not take place where light had not acted. A transparency from the fogged emulsion alluded to was shown, and a portion of the image had been covered with a seven-grain gelatine solution, which proved sufficient to protect that portion of the image from developing action. He had been asked if it was possible to get a second image on the covered portion, and he hoped to show some results shortly. In the only experiment he had been able to make, a second image was partially visible.

The Chairman inquired whether the gelatine contained an acid, and was informed that Simeon's was used. He (the Chairman) gave it as his opinion that gelatine merely acted as a mechanical restrainer, and if the film had been soaked for an hour previous to development, an image would have appeared, but with less contrast. He then spoke of some strips of gelatine he had shown before a meeting of the Photographic Club, which had unmistakable red and green fog, and he differed from the theory that gelatine had a quickening action in some cases and slowing in others, except in the case of hard and soft gelatines.

BIRKENHEAD PHOTOGRAPHIC ASSOCIATION.—Mr. Lange gave a fine demonstration on the development of the Eastman new rapid contact paper, choosing for the purpose two half-plate negatives of different densities, one being a view taken by him last summer on the Thames, and the other an instantaneous picture of an altercation between a cat and two dogs. The exposures were made at a distance of three feet from a gas flame of moderate size, fifteen seconds being allowed for the thinner negative, and thirty seconds for the denser one. The prints were then immersed in water, face downward, for two or three minutes, after which they were placed in the developing tray, care being taken to have them face upward in this case, and the developer poured over them. The developer used was Eastman's formula, consisting of oxalate of potash one pound, water forty-eight ounces, in one solution, and protosulphate of iron one pound, to water thirty-two ounces, in a

second solution, both being acidified with sulphuric acid. To the required quantity of the oxalate solution a sufficient quantity of the iron solution was added, until a bright ruby color was attained, and a few drops of a solution of bromide of potassium, one ounce in thirty-two of water, when the developer was diluted by the addition of about one-fourth the quantity of water. The prints were developed to the desired density, when, as there is no loss sustained in the fixing, the development was at once stopped by immersion in a bath of plain water acidified with a few drops of acetic acid. This, Mr. Lange explained, was necessary to prevent discoloration in the finished print. He had, however, found that one application of the acid bath was sufficient for the purpose, although the Eastman Company recommend it to be repeated three times. The prints were then transferred to the hypo bath (four ounces of hypo to twenty ounces of water), ten minutes being allowed for the fixing. Mr. Lange stated that ten minutes' subsequent washing in running water would be sufficient to insure the permanence of the completed print. The demonstration was highly satisfactory, the result being two brilliant prints, and the conversion of a number of the members in favor of the new process.

A NEBRASKA farmer sent his age, color of hair, the size of his money pile, and his photo to several marriageable maidens in the Fatherland last fall. The first answer came in the person of a young woman whom he has since made his wife.

INSTANTANEOUS PHOTOGRAPHY IN ARTILLERY PRACTICE.—It is announced on good authority that the firm of Frederick Krupp, of Essen, intends to employ instantaneous photography in the solution of highly important ballastic questions. Mr. Ottomar Anschutz, a highly skilled photographer, who has rapidly acquired notoriety by the excellent work which he has recently performed, is taking observations during the experiments at present being carried on at Krupp's range, near Meppen, by order of the German Admiralty. He is to devote his attention chiefly to taking

photographs of projectiles in transit, the recoil of gun carriages, the penetration of armor plates by projectiles, and similar phases in artillery practice. As projectiles have an average velocity of 1500 feet per second, the obstacles to be overcome in obtaining satisfactory photographs are very great, and the most delicate apparatus must be used, in the manipulation of which, however, Mr. Anschutz is said to be very proficient.

ASTRONOMICAL PHOTOGRAPHY.—The splendid discovery of the nebula of Pleiades by means of photography and the cut published in the *Moniteur de la Photographie*, of February 15th, have attracted much attention. One of our journals announces, that at last this nebula has been seen, but with great difficulty, by M. Struve, at Pulkowa, by means of the great telescope, the objective of which measures thirty inches in diameter. It is also announced that Mr. Common, the distinguished London astronomer is now paying great attention to the photography of stars and nebula. We daily expect to hear that the chamber of photography has made new discoveries in this direction.

HISTORICAL PRINTS OF MR. BÉATO.—Mr. Béato, an Italian photographer, showed the members a collection of prints, mostly 10 x 12 inches, obtained in the Crimea, in India, in Japan, and in the Soudan. This collection, which excited the most lively interest, is composed of prints of which a great number have a certain historical value. The oldest ones, obtained thirty years ago, were made on iodized albumen, and printed on plain salted paper. The most recent ones, representing scenes in the Egyptian campaign, were obtained on gelatino-bromized plates and printed by the carbon process. Another circumstance worthy of note: In this splendid collection of Mr. Béato there is a panoramic view of Delhi, formed by placing in juxtaposition ten prints, 10 x 12, on plain salted paper, *toned with sulphur*—that is to say, by means of acidulated hyposulphite *without* the presence of a salt of gold. Notwithstanding this mode of toning, the prints, after a long

series of years have suffered no change. This fact seems to prove that gold is not necessary for the preservation of prints.

At the request of the President, Mr. Béato showed how he obtains negatives on albumen with an exposure of three seconds. This is done by means of the development. Instead of plunging the prints into a solution of strong gallic acid, he applies the developing liquid in a warm room by means of a brush, which gives a weak image; he then repeats the application several times, using each time a new quantity of the solution until he obtains a negative of the required density. It is important to use only fresh eggs, and to avoid an access of iodide of potassium in the preparation of the plates. They may be kept for many years without fear of injury, and the development is very easy. The author asserts that, in the hands of amateurs, they are preferable to gelatinobromide plates.

SPEAKING of the way in which the *Press* tries to work up photography, reminds us of some of the wondrous "experiences" given to interviewers by members of our craft. Here is a taste:

"The latest catch is in advertising for handsome children as models. Every mother naturally thinks that her baby is the prettiest one alive. When the idea is presented to her mind of not only having her beautiful baby pictured as a model, to the envy of all other mothers, but of actually being paid for that joy, it fascinates her. In less time than a cow could turn a handspiring she has fixed upon the large sum she will demand, and, of course, receive, for permitting her baby to be photographed, and has even settled how the money shall be expended for baby's further adornment and comfort. Then she goes to the photographer who wants models, and his fine work begins. Mothers have to be treated in various ways, but the operator is a chump who cannot take a picture of any decent looking baby so that, with a frame of judicious 'taffy,' its mother will be pleased. If the subject has got a little beyond babyhood his job, that far, is all the easier, for all children are graceful, and unconsciously put themselves in pretty attitudes. It is only

the mother's attitude that has to be changed.

From one who has come to get money, she must be transformed to one who has come to leave money. So the model market is already supplied fully, greatly to the operator's regret, because a more beautiful child he never, etc.; or the proprietor of the gallery is unfortunately out and the operator has no authority, to his infinite sorrow, for a more charming infant he never, etc.; or it will be a question that must be carefully considered before decision between another baby and this one, but there can be little doubt that such a lovely baby as this, etc.; or if the mother is one that seems to require rough medicine, her baby, though a good average, will not do for a model, owing to certain imperfections, slight, perhaps, but nevertheless apparent to an artist's eye. All the while there is the negative, a very good presentment of the blessed baby, making its own appeal with mute eloquence to the mother. The end of it all is, of course, that, whether from hope or pride or cunning expectation of influencing selection, or spite, or just because she wants them anyway, the mother orders a dozen of baby's pictures. The fact is that no photographer really wants child models. Very few children of actual value for such service—like the little Fernandez, who was thoroughly trained for it—are obtainable, and there is no such demand for their pictures as used to exist. And it is very hard to take children's pictures—particularly those of babies—unless the operator has a peculiar talent for it, combining with a natural love for children and patience with them, a rare magnetism for controlling them and exceptional skill in instantaneous photography. When he possesses all those qualifications he has as much of that sort of work as he can do, and need not advertise for child models."

COLD WEATHER IN LONDON.—The photographic world is feeling the effects of the extraordinary prolongation of winter, this year, in London, and still more in the northern provinces. Sunday, March 7th, the thermometer remained at a few degrees below zero during the whole day, and the sun only showed itself for a short time through the fog in the afternoon.

PAPER NEGATIVES.—General Dawson, of Cheltenham, placed before the members of the photographic society of that town, some negatives on bromized paper, which he had himself prepared. Some of them were the reproductions of interiors, and the exposure had been very long—in some cases ninety seconds. They were made translucent by means of a mixture of equal parts of paraffine and vaseline.

In certain quarters the question has been raised in regard to the durability of paper negatives: Some photographers incline to the belief that castor oil, which is used to obtain the translucency, may become acid and gradually destroy the fibre of the paper (convert it into sugar?). This would not occur, perhaps, in using the mineral oils; but experience has not yet pronounced on this subject.

PERTAINING TO THE P. A. OF A.

\$150 IN PRIZES.

The above sum will be given as prizes, by E. & H. T. Anthony & Co., for the best display at the coming Convention of the P. A. of A., for the following pictures, which are to be made with Dallmeyer's Lenses on Stanley Dry Plates, printed on N. P. A. Albumen Paper.

\$50 for the best 18 x 22 portrait.

\$50 " " " six 8 x 10 views.

\$50 " " " 12 cabinet photos.

The successful pictures, and the negative from which they were printed, to become the property of E. & H. T. Anthony & Co.

Merit to be determined by three judges, who will be appointed at the time of meeting. *All pictures are to be made from negatives taken since the Buffalo Convention.*

Pictures to be marked: "Competition for the Anthony Prize."

ANOTHER FAIR OFFER.—We are authorized to make the following offer:

To the Michigan photographer, making the best display of his work at St. Louis, I will give a ten inch Entrekim improved duplex rotary burnisher, price \$22.00. The judges to be non-residents of Michigan, and to be selected as a majority of those competing for the prize shall decide. There can be no doubt of the great good that

comes to all photographers from these annual conventions, but those most especially helped are the ones that go to them, exhibit their work there, and participate in the meetings. Won't you go to the next one to be held in St. Louis, beginning Thursday, June 22d, and continuing four days, and compete for the Entrekim burnisher I offer? Reduced rates of fare will be made, and I will inform you regarding them in a later circular. The burnisher will be taken from Mr. Entrekim's exhibit at St. Louis, and shipped direct to the photographer to whom it shall be awarded.

GEORGE R. ANGELL,

DETROIT, MICH.

COMPETE FOR THE GRAND PRIZES.

Twenty-two medals and one-hundred dollars in cash to be awarded at the St. Louis Convention of P. A. of A., June 22-26, 1886, as follow:

For exhibits of members of P. A. of A., including United States and Canada.—Six gold and six silver medals for the best twelve exhibits in portrait photography.

Two gold and two silver medals for the best four displays of other photographic productions.

For exhibits from Foreign Countries.—One gold and one silver medal for the best two collections of portrait photography.

One gold and one silver medal for the best two displays of other photographic productions.

Two silver medals of merit will be reserved for any contingency that may arise and will be awarded by the Executive Committee.

One hundred dollars in cash for the best paper of practical value presented at the Convention.

For space, certificates, and further information, apply to

R. BENECKE,

Local Secretary of P. A. of A.,

St. Louis, Mo.

TO THE PHOTOGRAPHIC FRATERNITY:

At the coming Convention a grand opportunity will be given the energetic, wide awake, and competent photographer to win a valuable prize. Eight gold and eight silver medals for home productions alone. Also two medals of merit, so that the en-

thusiast or specialist with a well-developed idea, process, or specialty, has a chance for recognition. The man doing work on a small scale, provided it has merit, has a fair and square chance to win laurels. It is not conceivable that anything more could be done without offering medals for demerit.

The necessity is upon us, to show our appreciation of the generous contributions to the medal fund, and our bounden duty to make sure that the contributors shall not feel that they have cast pearls before swine. Rest assured that the tide will not soon be in our favor again, should indifferent encouragement be given to the present flood-tide of Convention affairs.

We want growth, and this can only be by taking advantage of every favorable circumstance placed within our reach. Let us get rid of our crude individualisms and provincialisms, by coming out and showing our hands to people who know the good when they see it and the bad also when they see it, who will not give us ignorant praise nor ignorant criticism, who are not indifferent to our success, but who will give us discriminate, appreciative, and enlightened encouragement. This is the road to broad, generous personality—take it. Come now, “faint heart never won fair lady” and so never won a prize.

Having your pictures on display with others, under the same light and conditions, and being able to step from your own to others’ work, you will be enabled to make a fair, critical comparison. Divest yourself of prejudice or blindness to your own faults, and institute a critical examination and comparison of position, composition, light and shade, tone, chemical effect and the *tout ensemble*, which go to make the perfect photograph.

Don’t go around saying “Oh, I have better work than that at home,” for nobody will believe you. Bring your work, that it may justify you in the sight of your friends, and make your enemies hold their peace. But even if you feel every day of the Convention, like pitching your display into the Mississippi, it will do you good, for behold, you begin to know good from evil. To know a defect is next door to the remedy.

On the other hand, the man who stays at

home to expand his purse, will surely contract his mind. An exclusive worship of Mammon precludes culture. It commands lucre, but let it not command you. The well-rounded, complete man should be your capital. Your judgment and insight modify and give character to all you do. Your tastes, culture, tone, etc., the peculiar subjective environment of your mind stamps itself unconsciously upon all your productions, the objective results. Therefore, avoid narrowness and clannishness, get out of your den and “the shop circle” occasionally at least, put yourself in the way of the friction of social intercourse and come and see what photography is doing.

Photography, the connecting link between science and art—more than science and if less than great art, is still a great calling. These three will continue to be intimately interwoven in the growth and progress of the race in coming ages. But where do you, the individual photographer stand? The vital question with every one of us.—Come and see.

The P. A. of A. has the look of permanency, has evidently come to stay, and it has a social life which you will do well to identify yourself with, and the sooner you do it, the sooner and easier you will be able to put yourself in line and reap the advantages of such association, and its attendant social conditions.

It is well freighted, has accumulated considerable momentum, and will move steadily forward, and if you are not wide awake and on hand, you will be left in the rear. Canvas the situation, and if you do it understandingly, you will join the procession.

To avoid the rush, delay, and annoyance at the entrance, consequent upon paying dues and receiving certificates, send in your dues beforehand to our worthy treasurer, G. M. Carlisle, Providence, R. I., who, being very prompt, will immediately acknowledge the receipt of same and send you a certificate. He keeps his accounts in such excellent shape, that he is able to tell at a glance, on hearing your name at the entrance, whether your dues are paid or not. If yes, you receive your badge and may step in, while the negligent who precede you, stand and await their turn, which takes

considerable time for each applicant. Come and help us push photography a peg higher.

Very truly yours,

W. H. POTTER.

INDIANAPOLIS, March 31, 1886.

[Received April 23d.—ED. P. P.]

THE MEDAL FUND.

CHICAGO, April 20, 1886.

MR. EDITOR: The following gentlemen have kindly subscribed the sum opposite their names to the P. A. of A. Medal Fund. Ten gold and twelve silver medals are to be awarded at the St. Louis Convention, June, 1886.

Respectfully,

JOSHUA SMITH.

Photographers' Association of America	\$200.00
G. Cramer Dry Plate-Works . . .	500.00
John Carbutt, Keystone Dry Plates . .	50.00
Eagle Dry-Plate Co., N. Y.	50.00
A. M. Collins, Son & Co.	50.00
G. Gennert	25.00
Gayton A. Douglass & Co.	10.00
Allen Brothers	10.00
Blair & Prince	10.00
The Blair Camera Co.	50.00
Scovill Manufacturing Co., by W. Irving Adams, Agent	50.00
E. & H. T. Anthony & Co.	50.00
P. Smith & Co.	10.00
The Eastman Dry-Plate and Film Co., by George Eastman, Treasurer	50.00
Henry D. Marks	10.00
Sweet, Wallach & Co.	20.00
Smith & Pattison	10.00
Hiram J. Thompson	10.00
N. C. Thayer & Co.	10.00
H. Lieber & Co.	20.00
C. H. Codman & Co.	10.00
M. A. Seed Dry-Plate Co.	25.00
A. B. Paine	10.00
J. A. Anderson	10.00
St. Louis Dry-Plate Co.	50.00
J. C. Somerville	25.00
H. A. Hyatt	15.00
Benjamin French & Co.	25.00

\$1325.00

SOCIETY GOSSIP.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—At a regular meeting of the Society, held Wednesday evening, April 7, 1886, the President, Mr. Frederic Graff,

announced to the Society the death of their fellow-member and late President, Mr. Joseph W. Bates. The loss to the Society was one that all must deeply feel, particularly the older members. Mr. Bates became a member in 1863, and during his long connection with the organization had endeared himself to all with whom he came in contact, for his uniform kindness and courteous manner. The older members were indebted to him for much valuable aid in the earlier days of photography in this country, when his frequent visits to Europe afforded him facilities for collecting information which he was always ready to impart to his fellow-members.

Mr. Ellis, who joined the Society about the same time as Mr. Bates, spoke of the help so frequently given by him to others interested in photography in the days when so much was new, and the opportunities of getting information on the subject were far less frequent than is the case at the present day.

The following resolutions were offered by Mr. Browne, and carried unanimously:

"The Photographic Society of Philadelphia, having heard of the death of their late fellow-member and former President, Mr. Joseph W. Bates, and desiring to express their feelings of regret and respect for their deceased associate, offer the following resolutions:

"*Resolved*, that in the death of Mr. Bates the Society has lost a most attentive and energetic member, and one whose general character endeared him to all the officers and members of the Association. His resignation of the Presidency of the Society, after a service of seven years, was a source of regret when accepted. His removal by death will be an abiding subject of sorrow as often as recalled.

"*Resolved*, That a copy of this minute be entered on the records of the Society, and an attested copy be sent to the family of our deceased member."

On behalf of Mr. William Bell, the Secretary presented a large photographic portrait of Mr. Bates, which was received with a vote of thanks, and ordered to be framed and hung in the room of the Society.

Mr. Corlies presented a lantern slide portrait of Mr. Bates, which was an exceedingly good likeness, and for which the thanks of the Society were tendered.

ROBERT S. REDFIELD,
Secretary.

MINNEAPOLIS AMATEUR CLUB.—Monday being their regular meeting and prize day, Mr. R. D. Cleveland won the prize. The picture was a 4 x 5, made with a single combination Darlot lens on Carbutt plate. It was truly beautiful, had perfect detail and very fine gradation of light. Mr. Cleveland claims he has made his finest pictures with a single combination Darlot lens, to which he has added a simple but good shutter.

A great deal of enthusiasm was displayed at the meeting. Next month a very lively competition for the medal is expected, as the weather is fine and the boys talk of hunting trips for good views. Mr. Peck, the stockdealer, was burnt out at noon to-day, with a loss of about \$4000, and his place looks as if it was light-struck. A package of St. Louis and Minneapolis plates with the ends burnt off still remains on the shelf, while card stock lies on the ashes as if a large card party had just broken up. But we trust Mr. Peck will continue, and, like Phoenix, arise from the ashes greater and grander than ever.

HYPO.

THE exhibition of the Pacific Coast Amateur Photographic Association was a marvellous success. Over 1100 prints were on exhibition, beside many other novelties. We held our press for a full report, but when it came it was so full, and so replete with charming interest, that, rather than curtail or divide it, we hold it all over for our next number. It is good enough to keep. We have a special report from our own correspondent.

THE SOCIETY OF AMATEUR PHOTOGRAPHERS OF NEW YORK.—The second annual meeting was held on Thursday evening, April 13. The reports of the President and committees were read, and a new Board of Directors elected. There was on exhibition a series of choice photographs, presented for

"the Presentation Print Competition." The photographs were also on exhibition Wednesday afternoon and evening, April 14.

OUR LONDON CORRESPONDENCE.

MY DEAR MR. WILSON.

I have for some time past intended to write and tell you how much I enjoyed your magazine. THE PHILADELPHIA PHOTOGRAPHER most certainly takes its place in the first rank of the photographic journals of the world, and it certainly stands unrivalled in its illustrations. I was particularly charmed with the photogravure of "Themasses," and later with the gelatine plate of "The Toilers of the Sea." I must also congratulate you on possessing such splendid silver printers as Messrs. Roberts & Fellows seem to be, judging by the silver prints in your magazine. I hope your enterprise in giving semi-monthly instead of monthly issues, at the same price as formerly charged for the twelve numbers, will meet with all the success it deserves.

I wish some one or other of the English journals would follow your lead, and give us reproductions by the various photo-mechanical methods. What a relief it would be if our old and tried friend the *Photographic News* would "let up" (as you say on your side the water) on reproductions by "Sprague's ink method," and use something that would convey some fair idea of what the original negative is like.

The "*Amateur Photographer*" is going to publish an edition *de luxe*, at the price of one shilling. I expect that it will be a splendid number, in keeping with all the *Amateur Photographer* does. Look out, or he will be running you a close race. I fancy I can see you smile from the lofty height of your *twenty-three years*. Well, there is room for all the good things that can be published.

I noticed a short time ago that Mr. Muylbridge, of Philadelphia, had again laid claim to making negatives in an infinitesimal fraction of time. Some few years ago he claimed (if my recollection serves me correctly) to have made his negatives of horses in motion, etc., in the $\frac{1}{5000}$ th of a second; now he claims to have recently made a series of negatives, with an exposure of $\frac{1}{4500}$ th, a

little more moderate than the former claim—Now Mr. Muybridge has done what no other man living has done in the way of making these negatives, why does he not rest on that, and not put forward such an absurd claim as this exposure of $\frac{1}{4800}$ th of a second? I would like to inquire, what lens was used, what shutter, what plate, what developer? I hope he will give us this information, as it would be satisfactory to a very large number of photographers on this side of the water.

I hope the Convention at St. Louis will be productive of good to the photographic world. THE PHILADELPHIA PHOTOGRAPHER will be eagerly looked for, in order to see a full report of its proceedings. Do you intend to publish, as you did once before, a *convention number*?

The question of isochromatic, or orthochromatic photography, is coming to the front, and undoubtedly will be greatly experimented with during the year. I myself am hard at work in this line. I have found much that is good in it so far.

Negative paper seems to have been a great disappointment to many of our amateurs; grain cannot be got rid of, and that alone is enough to condemn its use.

The question of *who are amateurs* is again coming to the front here. I hope the line will be strictly drawn, and that no one who receives money or money's worth for their negatives, will be entitled to membership of amateur clubs. I understand they are not at all particular in America.

We have got Mr. J. Traill Taylor over here again as assistant to Mr. Bolton, the editor of the *British Journal of Photography*. How he must be missed by the American photographers! The *Photographic Times* must feel his loss keenly. I see, however, that he still writes a little for it, so that the parting shall not be felt too much at first.

I have been trying Eastman's bromide paper, and prefer it to that of any other maker in the market. It gives splendid depths in the shadows, and the whites are very pure. I do not think, however, that your dry plates run us at all close; they may in regard to speed, but not in quality. By-the-by, what a rage there is for instantaneous photography. I verily believe that if an ordinary

amateur went out to take a barn he would use the quickest shutter he had to make the exposure with. This evil is bound to correct itself in time.

Many thanks for the copy of *Photographics*. What a splendid text-book it is. When anyone bothers me with questions about photography, I tell them to look it up in *Photographics*, and if they can't find what they want there, then I am willing to do what I can to help them. I have had the answer: "Photographics—havn't got it; whose is it? where does it come from?" and so on. I tell them that if they have not got it, that it is quite time they had, and that they had better write at once to Atkinson, of Liverpool, for a copy of *Wilson's Photographics*. I "guess" (that's American I fancy) that I shall have to charge you for advertising it; what do you say to that?

I think it is about time that I concluded this rambling epistle, and not try your patience further at this time.

In conclusion let me wish you all the success with your journal that it deserves. It has only to be seen and read, to place it in the front rank of journalism.

Just one word more. I read your article on "Petra," in the *Century* magazine. I enjoyed it muchly. More on that hereafter.

Faithfully yours,
QUÆSITOR.

PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN,
PAUL MALL, LONDON.

CORRESPONDENCE.

CELESTIAL PHOTOGRAPHY AT THE OBSERVATORY OF PARIS.

MY DEAR EDITOR.

I was quite aware that photography had upset many of the preconceived ideas that mankind had of the numberless things in this world. We had become somewhat reconciled to this upsetting by the thought that it was confined to the things of this earth; and that the starry heavens were beyond the reach of these scientific iconoclasts; but we were in error, for the *Scientific American* has made the wonderful discovery that all our former ideas of the heavens are as far removed from the actual state of things as the earth is from the sun. The importance

of this information, that the *Scientific American* has favored us with, will be of inestimable value to all who pursue their calling upon the vast deep. When we come to think over the state of ignorance that the world has slumbered in for hundreds of years, and which the *Scientific American* has awakened us from, our united voices should rise to heaven in praise and thankfulness.

It seems that up to the present time our navigators have not understood anything about the position of the stars, and that their safe arrival in port was due to an ever-watchful Providence. Can it be that this was the cause of the wreck of the Oregon? We pause for a reply. But, stay, I have just seen the illustrations in the last issue of your journal, which purport to be taken from the same fountain head, but which are the very antipodes of those in the *Scientific American*. Can it be that the *Scientific American* is wrong? Heaven forbid; far sooner let all the stars in the firmament be changed, the east be turned to the west, and light to darkness, than that our faith in the infallibility of our beloved *Scientific American* should be shaken.

TERRÆ FILIUS.

FREDONIA, N. Y., April 15, 1886.

RESPECTED SIR: A friend of mine seeing the photo-gravure picture "A Study from Themasses," recognized a likeness of himself in the picture of one of the animals (second one from the right), and I would like the picture for him. What will you make me one picture for?

I found fault a short time ago about the price of the PHILADELPHIA PHOTOGRAPHER, but I will take it all back, Mr. Editor, for your magazine beats the world for photographic information.

Yours most truly,

HARRY MCNEILL.

[Mr. McNeill is humorous.—ED. P. P.]

15 ROYAL TERRACE, EDINBURGH,
Feb. 27, 1886.

ALTHOUGH I lent a hand in denouncing a certain disguised author who, a few years ago, published some of his own modern verses as the veritable "Mother Shipton's prophecies" of mediæval history, yet I must make exception to your so-called "Embel-

ishment" of January 16, representing her as a vulgar old harridan. She was, in reality, a Lady at Court; aged, no doubt, but courteous, refined, and attempting to deal in prophecy with the affairs of nations from a statesman-like point of view. It is the vulgarity of modern times that has lowered her character, and also attributed to her long strings of verses prophesying railways, steamers, telegraphs, etc., which she never wrote or thought.

Now go and look through all society, and when you have found an ancient lady in black silk and brocades, with eyes beaming with tenderness for all mankind, with her head filled with all the missal knowledge before her day, and her voice in sympathetic tones, and with sweetly smiling countenance; always ready, when sought, to tell the episode of gallant knights and fair ladies, and all the best of mankind whom she knew so well in her youth, and now mourns them prematurely cut off—photograph that lady if you can, and she will make a far finer and more enduring picture than any smooth-cheeked damsel of eighteen or twenty.

Yours very truly,

C. PIAZZI SMYTH.

VIEWS FROM MY OFFICE WINDOW.

APRIL came in a little behind schedule time, but on the 5th thereof we had a morning shower which will not soon be forgotten by those who had to face it. From my window the rain fell so thick and fast that the falling drops pelted each other into spray and a veil formed so dense that I could not read the sign of the *Century* magazine just opposite on the other side of the square.

The pedestrians, poor things, run which way they would, were met by opposing sheets of water which drenched them by the instantaneous method, using the "open lens," a large "drop," and no "stop."

How green the grass has grown since, and the trees lovely. A week after the rain I saw a man seated on a lawn mower, driving a wise-looking horse over the sod, clipping the youthful fuzz of green that it might grow faster. This was life.

For three days the great Barnum stood in his tent door at Madison Square Gardens, and looked into the sky. It rained, and in sorrow he sent out to the evening papers the announcement, "No parade to-night on account of the weather." The fourth day he dared the Signal Service Bureau and advertised the procession positively for that night, which was cold but not wet. Looking up Broadway, the sight was a gorgeous one. The length of the parade was a good mile, and every man in it, high up on cage or chariot, held colored lights. Near by, there was only the same tinsel and gilding, the old dusky elephants, and hump-backed camels, the painted cages, only in greater number, glorified but little by the illumination of strontium and copper. But further down one only saw the galaxy of red and blue and green stars, dancing and swaying high up in the air, and burning as far as sight could go, the fuming smoke with their light on it, and the black sky behind it all—lurid magnificence.

BIBLIOGRAPHY.

A NEW TREATISE ON SOLAR CRAYON PORTRAITS.

Opportunely, just at this time when photographers are beginning to do more large work which requires finishing in crayon, comes the "Complete Treatise on Solar Crayon Portraits, and Transparent Liquid Water Colors." Its author is Professor J. A. Barhydt, of Kingston, N. Y., who, with twenty years experience in doing and teaching crayon work, is well able to treat the subject. This book is a clear, comprehensive manual, giving efficient, practical instruction, with many valuable hints. While primarily a book of instruction for learners, it aims to lead them higher than mere mechanical facility, and is written in a thoroughly artistic spirit.

The book first takes up the theory of color, and the characteristics and use of the different tints, and the ground in which each is most valuable. It then goes over the crayon portrait from the mounting of the paper on the stretcher to the last finishing. It considers separately the background, the face, and the drapery, with the approved

style of rendering each, thoroughly expounding principle and method of crayon work. India ink photographs and colors for photographs mounted on glass are also treated.

The book covers its ground capably and well, and will be found a most useful manual to the photographer who wishes to obtain a grasp of these accessories to his art.



The part of the treatise that deals with the crayon is greatly increased in value by the illustrations, which throw light on its instructions. One of them is herewith reproduced. The price of the book is 50 cents and all dealers have it.

OUR PICTURE.

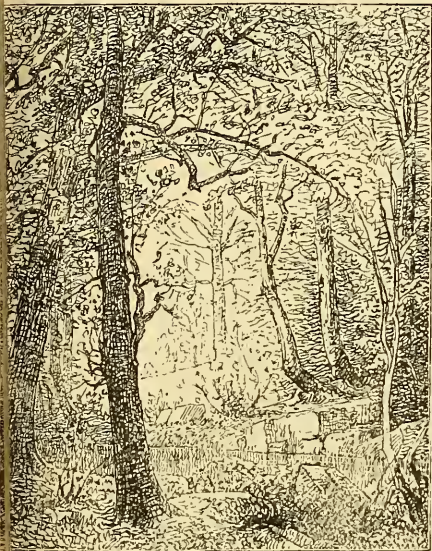
WE have pleasure in embellishing our current issue with the second of the series promised to represent the various quarters of our American globe. The subject is "The East," and is from a negative made by Mr. George Hanmer Croughton, whose instructive papers on art photography are now being produced in our pages.

Several negatives being required to print our edition, Mr. Croughton very kindly reproduced the original, and made us several duplicates—first a positive the size of the original, and then the duplicate negatives.

It will not be forgotten, therefore, that Mr. Croughton is a skilful photographer, as well as an excellent painter. We presume he will presently have his own allusions to make to "The East;" but that need not prevent us from exercising the same privilege. The picture is a most opportune one,

coming as it does at the season when nature is putting in first class trim just such lovely

FIG. 1.



spots as this for the temptation of the sauntering camera.

FIG. 2.



The locality is on that romantic stream, near Philadelphia, the Wissahickon, which

courses its way within the limits of Fairmount Park. It is one long line of splendid bits for the camera.

It is *not* one of those streams

"Whose foam is amber, and their gravel gold," but rich in pictures which combine most æsthetically before the camera.

Is it not just such streams as the Wissahickon which test the knowledge and skill of the camera-lover? And since many will soon wrestle with other like quiet streams, during the season so near at hand, we have varied our notes by engravings from the works of some noted landscape painters, as additional suggestions to the outdoor photographer.

FIG. 3.



The first is "Autumn Afternoon," by Mr. Wm. T. Richards, and is just such a study as you can find in quantity within a radius of a mile of Mr. Croughton's choice. The second is "Sycamores in Old Shokan," by Mr. Arthur Parton, a view very like those obtainable on the upper Wissahickon. And still higher up the river, near Valley Green and Indian Rock, we may find such studies as our third selection, "Morning," by M. Kollock, Esq. Then clambering up the hills to the right or left of the shady winding roads, we may find scenes in plenty

which resemble Mr. A. D. Shattuck's admirable "Noonday Pasture," a reproduction of which we give below.

Thanks to Mr. E. Wood Perry, N. A., the owner of them, we are privileged to use these sketches, made from the original paintings by the artists who painted the pictures. We might occupy a page or two, or three, in applying their lessons, but Messrs. Smith

At the crayon factory.

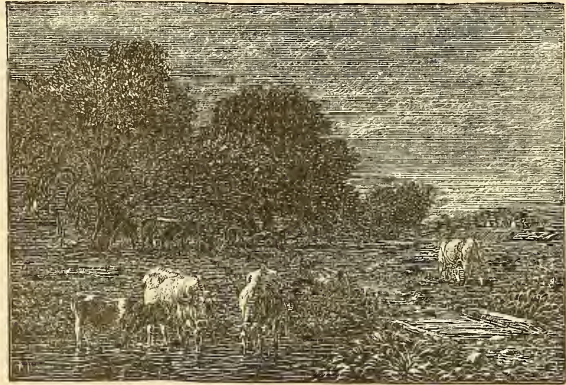
"This, sir, is a miniature on porcelain, highly colored by Dodaubi, and worthy of any family."

"What's it worth?"

"Fifty dollars is the price, sir."

"Why, you told me that crayon was only fifteen dollars with the frame, and they are immensely bigger. I'll tell you what I'll

FIG. 4.



and Coughton are both doing work which will enable you better to understand and love such spots as this. And next you will learn to sing with Dryden to the music of the stream

"What precious drops are those,
Which silently each others' tracks pursue,
Bright as young diamonds in their infant dew."

In our next issue we shall present Mr. Dumont's "Listening to the Birds."

The prints of "The East" were made for us by Messrs. Roberts & Fellows, Philadelphia, on N. P. A. Pensé paper, imported by Messrs. E. & H. T. Anthony & Co., New York.

THE HUMOR OF IT.

PHOTOGRAPHER, to pretty blonde: "I would suggest vignettes with a black background for you, for you know black and gold go so well together. Besides, you would have a nimbus about your head and look like a saint, instead of the sinner you are."

do. I'll take the crayon if you will throw this in."

A SOUTHERN correspondent asks: "What is the difference between a practical photographer and an amateur?"

His answer is: "The latter focusses for butter, and the former cusses for bread."

UNDER the skylight:

"He's not what you call strictly handsome," muttered the photographer from under his focussing cloth while sharpening on a homely baby that lay howling in its mother's arms; "but it's the kind of face that grows on you."

"It's not the kind of face that ever grew on you!" was the indignant and unexpected reply of the maternal being.

BETWEEN friends:

"I am going to take a trip abroad, and expect to go to Italy, Spain, Sicily, Sardinia, and Greece. Won't you come with me?"

"No, thank you, Jack; I would much rather see these countries in the stereoscope. I have a horror of fleas!"—*From the French.*

Editor's Table.

PICTURES RECEIVED.—From Mr. R. R. SALLOWS, Goderich, Ont., a cabinet group of five young men, posed above and behind one another in a vertical composition, which is very curious, and shows excellent lens work. From Mr. H. E. MATTHEWS, San Francisco, Cal., an admirable 5 x 8 view of the Lick Observatory and adjoining buildings. A diagram of the great observatory that is to be, and its relative location and size, is marked upon the plate. It will be a menster. Mr. F. JAY HAYNES, Fargo, Dakota, has caused a great deal of unwholesome unhappiness by sending us a cabinet of "the only unmarried woman in the city of Fargo." She is dressed in leopard-skin velvet, her hands folded in front, her body in profile, her head nearly front face, with an "I-know-it-all" expression, fifty-six years old, and self posed, with a "young-man-come-West"—Chicago sort of an air about her. Mr. Haynes says, "She was posing in front of a Dallmeyer, and selected a very bright day. When I was about to snap a St. Louis, the fair maiden said, 'I'm ready, sor.'" Her pose is not a bad one; but her face—don't ask. Mr. Haynes also sends us his catalogue of Northern Pacific views.

ITEMS OF NEWS.—Messrs. HAYNES & WHITE, formerly at Eagle Rock, Idaho, have opened a splendid new studio at Helena, Montana. The *Register* gives them a good send-off, praises their work, and envies and gracefully congratulates Helena. We regret to learn that Mr. S. R. CASSELMAN, Greenfield, Ohio, lost his studio by fire early in April. All the 1886 numbers of the PHILADELPHIA PHOTOGRAPHER are on their way to him as his whole library was destroyed. A No. 3 Ross lens was all he saved. He hopes to be going on again soon. Success to him. Mr. O. H. PECK, Minneapolis, Minn., has also been burned out. He expects to be under way soon, with a better stock than ever of photographic materials.

THE PHILADELPHIA PHOTOGRAPHER, the publication of which has recently been changed to New York, keeps up its well-deserved reputation. Its excellence is evidenced by the fact that it completes the twenty-third year of its existence. The number bearing date March 20 contains, beside numerous interesting and valuable articles, a magnificent supplement, showing a marine view, "The Toilers of the Sea," admirably executed in a green tint by the Photo-

gravure Company, 853 Broadway, New York.—*Lithographer and Printer.*

ON THE CONTRARY, QUITE THE REVERSE.—The *Scientific American* recently published some splendid engravings of the illustrations which appeared on pages 228 and 229 of our last issue, and, as is often done, reversed the drawings. In doing this, they represent the "square of heaven," on page 229, with a white "heaven" and *black stars*, which make the scientific wonder even more startling than at first supposed to be.

PHOTO MERCHANDISE AT THE "HUB."—If there is one house that stands higher in the trade than another, it is that of Messrs. C. H. CODMAN & Co., Boston, successors to two other firms equally famed for their probity and fair dealing. They enjoy the confidence of a large patronage; they do an immense business, and in the quietest sort of a way.

WHY SOME PEOPLE DO NOT ADVERTISE IN THE PHILADELPHIA PHOTOGRAPHER.—We are often asked this question. There are two reasons: A. Our terms are necessarily in excess of those of magazines which are worth less than ours; and, B. We refuse all advertisements which we think would cause loss to our readers by misleading them. We hope to be able presently to guarantee to refund any loss which any reader may have from the purchase of any article advertised in our pages. Is not this worth something?

The *American Lithographer and Printer*, published by the Lithographer Publishing Company, Henry H. Fick, Editor, has opened a New York office at 12 Centre Street. Some excellent articles on copying, photo-engraving, and photo-mechanical printing, have appeared in it recently. It is a live magazine, and well edited. Its illustrations are plenteous and excellent.

THE Steinheil lens is gaining great popularity among those preparing to make the larger-sized pictures. There is a "style" for every kind of work. We shall try to explain some of the differences presently, in order to answer the queries which come to us.

THE "big offer" made on page 220 of our last issue—\$8 worth of popular and useful photographic books for \$4—is still open. See the

advertisement, and snap up a set soon; their usefulness will never wear out. They are mailed daily to all sections.

MR. H. A. HYATT'S "CONVENTION" CATALOGUE.—It is ready, and we have been favored with an advance copy. The cover is showy; the inside giant pages are full of prices, lists, cuts, illustrations, and items of interest, and it covers 212 pages. It is a monster, and cost an immense amount of work. But what it will cost of work hereafter will be immensely more, for it will cause myriads of orders to be sent to the most enterprising, growingly popular, and leading stockdealer of the entire Southwest. Mr. Hyatt invites all the visiting Conventions to make a call at his new headquarters, and—before they make their purchase. It will pay to look at his stock *first*

MESSRS. S. C. PARTRIDGE and W. B. TYLER, San Francisco, both favored us with early copies of notes on the exhibition of their Society. Full particulars in our next number.

"LISTENING to the Birds," Mr. John E. Dumont's charming picture, will appear in our next number, and will attract great admiration.

BACK NUMBERS.—We can supply the back numbers of our magazine from 1864. The first six numbers of 1886 to any address for \$1.25. A list of contents and sample copy free. Our list of subscribers is far ahead of 1885.

MESSRS. SHEEN & SIMPKINSON, Cincinnati, Ohio, write us that, having found themselves much cramped for space by increase of business, they have just leased for a long term the large building adjoining their present quarters, formerly occupied by the American Express Co., where they have double the room they formerly had. They have fitted up entirely new, and are now preparing to supply the photographers in the surrounding country with anything they desire.

DETECTIVES AFTER "DETECTIVE" CAMERAERS.—We caution our amateur friends not to allow their detective cameras to tempt them into mischief. We all see lots of comic scenes every day (and it is a blessing from heaven to be able to see and enjoy them), but we should not take and expose pictures of people that would give them pain, such as lovers reading poetry on one chair, etc., *ad infinitum*.

Sea-sick people, for example, have been taken "all turned over," who, when well, were as able to hold their own as anyone. A photo-joker, crossing the Straits of Dover, lately, "got some

good things" of his unfortunate fellow-passengers. Some call such results "sic-transit" pictures, "sea-nergy," and photographs "in straits," but that don't justify their public exhibition. Be kind.

REMOVALS.—We have received the following notice: I beg to inform you that I have removed to 16 Cedar Street, where I have increased facilities for transacting business. (Formerly 99 Water Street.) See advertisement.

CHAS. A. W. HERRMANN.

The Boletín Fotografica, Havana, Cuba, for March, has a photograph of Moro Castle, taken from on board the steamer, on a Carbutt plate (special) $3\frac{1}{4} \times 4\frac{1}{4}$, with Scovill's detective, and a Beck lens. The enlargement and printing were made by phototypy. All are excellent.

A TREMENDOUS GLASS ORDER.—Mr. W. J. Althans, the able assistant of Mr. G. Cramer at the great St. Louis Dry Plate Works, called upon us a few days ago. During his visit to our city, he completed an enterprise that he has been laboring after for nearly two years. Heretofore dry-plate makers could not use the best English sheet glass, because it was too expensive, and therefore must content themselves with Belgian and French. At last, however, by placing an order with the agents of the works for \$75,000 worth of glass, Mr. Althans says that after it begins to come, the Cramer plates will be upon English sheet only, and will be cut to regular size, run even in thickness, and always fit the holder. This is the largest order ever given for glass, and speaks volumes for the enterprise of our friends in St. Louis and for the amount of business done by the Cramer Dry Plate Works.

DR. E. L. WILSON, of the PHILADELPHIA PHOTOGRAPHER, contributed a most entertaining article to the *Century* magazine for November last. The story is about "A Photographer's Visit to Petra." This city is one of the oldest places in the East, and is very difficult to enter, owing to the careful guard kept against strangers by the Arab robbers that infest it. Dr. WILSON and a small party succeeded in entering the city at a great risk of their lives, and also in capturing some excellent pictures of the various interesting ruins that abound there. The story of his adventures is told in forcible and charming language, and we have enjoyed the paper very much. The paper is filled with excellent reproductions upon wood from Dr. WILSON's photographs taken on the spot.—*Anthony's Photographic Bulletin*.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. *We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. Postage-stamps taken.*

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



"The flowers that bloom in the Spring, tra-la, have something to do with the case," for we are engaged on a number of novelties suited to the approaching season. Our regular customers are requested to send for sample prints.

Address LAFAYETTE W. SEAVEY,
Studio, 216 E. 9th St.,
New York.

FOR SALE.—Having decided to retire from active business, I will sell my gallery for \$6500. \$5000 cash, balance in one year, secured by mortgage on the premises, or \$4500 cash without the negatives. Address

LEON VAN LOO,
148 W. Fourth Street,
Cincinnati, O.

RETOUCHING BUREAU.—Under the direction of Mr. H. Harshman. None but skilled help employed. Quality of work guaranteed. Prices moderate. Send your negatives in wooden box with cover screwed on, and prepay charges.

Address GAYTON A. DOUGLASS & Co.,
Merchants in Photo. Supplies,
185 & 187 Wabash Avenue,
Chicago, Ill.

THE PLATINOTYPE (Patented).

Send ten cents for instructions and sample, portrait or landscape.

WILLIS & CLEMENTS,

25 NORTH SEVENTH ST., PHILADELPHIA, PA.

BUCHANAN, SMEDLEY & BROMLEY,

General Agents for the sale of materials.

ROCKWOOD SOLAR PRINTING CO.

17 Union Square, New York.

TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, *we are not at all dependent on the weather.*

GEORGE H. ROCKWOOD,
Business Manager.

FOR SALE.—Gallery in a city of twelve thousand. Whole or part cash. Inventory furnished on application. Address

PHOTOGRAPHER,
Box 1296, Rome, N. Y.

NOVELETTE CAMERA.—We are now ready to furnish these in 8 x 10, 6½ x 8½, 5 x 8, and 4 x 5 sizes. They are lighter and more compact than the novel camera, using our patent improved dry-plate holder of same size as the Fairy Camera. They all have the patent spring-hook for holding the bed rigid when extended, and are finely finished. Price same as for the Novels.

E. & H. T. ANTHONY & Co.,
591 Broadway, New York.

M. WERNER,

PORTRAIT ARTIST,

No. 102 N. TENTH STREET, PHILADELPHIA.

Photographs finished in crayon, India ink, water colors, and pastel, in all sizes, in the very best styles, and at moderate prices.

Solar Prints and Enlargements Furnished.

WATERTOWN, July 13, 1885.

MESSRS. E. & H. T. ANTHONY & Co.

I had always used the ——— plates, but when his factory stopped was obliged to try Stanley's.

I am much pleased with the result. They are the best quick plates for giving fine chemical effect with good density that I have ever used, and the latitude of exposure is so great that I have not had an overexposed plate since I used them; on the other hand, not a single plate was underexposed.

The 8 x 10 Novel Camera and the 8 x 10 Dallmeyer Rapid Rectilinear Lens I recently got from you, give the best of satisfaction.

Yours truly,
C. S. HART.

Send on the plates at once, as I am nearly out of Stanleys.

ALEXANDRIA BAY, Oct. 21, 1885.

MR. E. ANTHONY.

DEAR SIR: I took your advice and started with Stanley plates, and from that time to this I have not used any other, and shall continue to use them until I can find something better.

I could show you a number of letters ordering duplicates, and giving great praise to the brilliancy of the views sent. I shall send you a view of the steamer Maud running full headway, while I was on the steamer St. Lawrence going the opposite way, and also one of the steamer St. Lawrence I made from the land while she was going seventeen miles an hour. I made them with the Prosch Shutter attached to the Platyscope lens.

I must say that Stanley plates have helped me out of many a difficulty this summer.

I might add that the only paper I use for all my work is the new N. P. A. Pensé.

Respectfully,
A. C. MCINTYRE.

GALLERY TO LET OR SELL.—With or without stock. The owner wishes to travel during the summer, or will give to a suitable person on shares, First-class north light. Best opening in Canada. Cards, \$4.00; cabinets, \$6.00; 8 x 10, \$12.00 per dozen. Enclose samples of work to

Box 282,
Port Arthur, Canada.

WANTED.—A No. 1 operator to take charge of that department in one of the leading galleries of St. Louis. Address G. H. B.,
care J. C. Somerville,
1009 Olive St., St. Louis, Mo.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced. Knowing their ability, as my former employes, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

THE best artists and solar printers in the United States and in Europe use platinotype paper for large and small pictures. This paper is manufactured for Willis & Clements' Platinotype Process, and is the purest and most desirable grade of paper made in the world for ink, crayon, or pastel. Samples free.

BUCHANAN, SMEDLEY & BROMLEY.

Importers, 25 N. Seventh St., Phila.

WANTED.—An A No. 1 operator to take charge of that department of one of the leading galleries of St. Louis. Address G. H. B.,
care J. C. SOMERVILLE,
1009 Olive St., St. Louis, Mo.

ADDRESS T. W. POWER, N. Y., Secretary of Association of Operative Photographers of New York City, for operators, printers, and retouchers, 392 Bowery, or 487 Eighth Avenue.

S & M.

CAUTION.—The genuine and original S & M EXTRA BRILLIANT PAPER always has the *water mark* S & M in every sheet.

A good deal of paper is sold with merely the stamp in the corner. This may be good, and it may not, according to what paper is used by the parties who want to work it off by putting on a stamp that has a reputation.

Look through the paper for the water mark.
E. & H. T. ANTHONY & Co.

Patent Improved Telescopic Folding Tripod, with automatic leg fastenings. Perfectly rigid, the legs being held in position firmly, and it is impossible for them to become unfastened until the spring that holds them in is pressed back. This spring also forms a washer for the tripod screw.

E. & H. T. ANTHONY & Co.,
591 Broadway, New York.

FOR SALE.—At great advantage, one 8 x 10 single, wide-angle Dallmeyer lens; perfect. \$25.

Address S. A.,
care PHILADELPHIA PHOTOGRAPHER,
853 Broadway, New York.

FOR SALE.—Cheap, complete outfits for 4½ x 3½, 5 x 4, and 8 x 5 plates. For particulars,

Address "E,"
Office of PHILADELPHIA PHOTOGRAPHER,
853 Broadway, New York.

Our dark-room and laboratory are under the charge of Dr. John Nicol, photographic chemist, late of Edinburgh. None but purest chemicals used in our preparations. All the standard dry-plate developers kept in stock. Your patronage desired.

GAYTON A. DOUGLAS & Co.,
Merchants in Photo. Supplies,
185 & 187 Wabash Avenue,
Chicago, Ill.


FOR SALE.—Strictly first-class gallery; best location on Broadway. Address

E. L. WILSON,
853 Broadway, New York.

PORTRAITS IN CRAYON.

The new book by E. Long, on the art of making portraits in crayon on solar enlargements, covers the entire ground, and is sold for the low price of fifty cents. For sale by

EDWARD L. WILSON,
Philadelphia.

 A new lot just received.

EVERY photographer in want of excellent lenses, for *any purpose*, will best serve his interest by consulting the new illustrated price-list of Messrs. BENJAMIN FRENCH & Co. before purchasing.

DEAR SIR: Please send us three copies of *Long's Art of Making Crayons on Solar Enlargements*, and oblige

BUCHANAN, SMEDLEY & BROMLEY,
25 N. Seventh Street, Phila.

THE EAGLE PLATE sails successfully everywhere; not only along the shores of the salt sea, but by the waters of the classic Hudson. Read the following:

POUGHKEEPSIE, N. Y., April 17, 1886.

EAGLE DRY PLATE Co.: We have received the four dozen 5 x 8 plates made from different emulsions. All are good, easily manipulated, and produce negatives of fine quality; but we like No. 988 best. Send 100 dozen 5 x 8 and 4 or 5 cases 6½ x 8½. We suppose it is hardly necessary for us to say that we think you are making a first-class plate. If you are able to keep the quality up to this standard, you have us for your customers. Ship the plates as soon as possible.

Truly yours,
VAIL BROTHERS.

SOME first-class artistic photographer, who wishes to purchase a nice business having custom from twenty-seven surrounding towns, and where is no war on prices—cabinets \$5.00—can hear of one by addressing

EDMONDSON,
Norwalk, Ohio.

\$2200 will buy an acknowledged leading gallery of St. Paul, if taken very soon. A chance of a thousand. Intending purchasers invited to investigate.

Lock-box 2370,
St. Paul, Minn.

FOR SALE ON ACCOUNT OF DEATH.—A gallery valued at \$3500. \$1800 cash down will buy it.

Address MRS. JOHN J. JOHNSON, 3d,
Stamford, Conn.

FOR ALMOST NOTHING.—I have a quantity of Chance's A No. 1 glass, the best manufactured, which I will sell at my gallery for one dollar per hundred for 5 x 7 and 5 x 8, and two dollars per hundred for 8 x 10.

Geo. G. ROCKWOOD,
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WILSON'S PHOTOGRAPHICS. Fifth thousand. A splendid present.

USED "DAISY," AND "NEW" HOLDERS
FOR SALE.

From holders used at New Orleans Exhibition,
I have

24 of 5 x 8
12 of 10 x 12
1 of 14 x 17.

Cheap. Good as new.

EDWARD L. WILSON.
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FOR SALE.—Gallery doing a good photographic and gem business in the heart of the city. Reason for selling, party desires to leave town. Address H. C. SCHAEFFER,
606 Olive St., St. Louis, Mo.

SITUATIONS WANTED.

No charge for advertisements under this head; limited to four lines. Inserted once only, unless by request.

By an artist of experience, in some country gallery during the summer, where fine work is done. Pastel, crayon, and water-colors a specialty. Salary \$25 a week. Address J. W. Lover, 2938 Poplar Street, Philadelphia.

By an experienced printer and toner. Address G. N. A., Box 518, Rochester, N. Y.

By a young man in gallery to learn more of the business. Have had one year's experience. Address F. B. W. Cowver, Box 848, Wooster, O.

By a lady as retoucher. Address Box 1167, Northampton, Mass.

As retoucher by a young lady of experience. Please address B. A., care of Carrier No. 2, Rochester, N. Y.

By a young German, with about two years' experience, as printer and general assistant in a first-class gallery. Steady situation the main object. For sample print and picture of myself, address "Printer," care Aleck. Hertz, 178 Mt. Hope Avenue, Rochester, N. Y.

By an experienced operator, printer, and toner. Can also make good dry plates, or will run a gallery on shares. Reference. J. H. McGowan, 34 Southbridge St., Worcester, Mass.

As saleslady in a photograph gallery, by a young lady of four years' experience. Please address R. M., care of Carrier No. 2, Rochester, N. Y.

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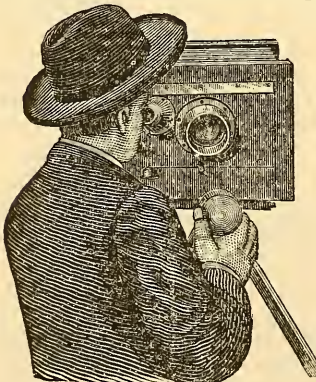
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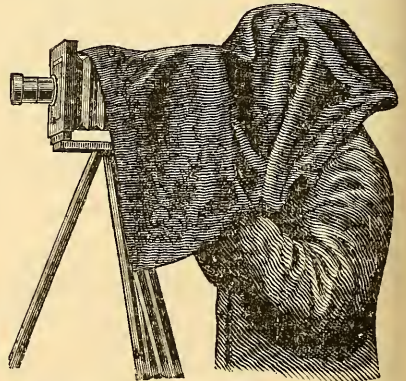
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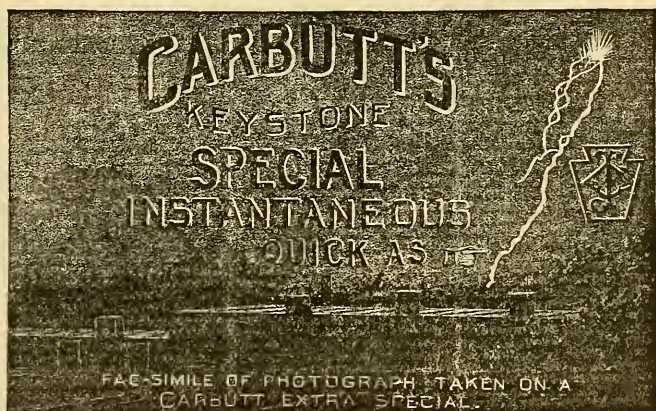
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ASK FOR THE
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TRY THEM
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USE THEM.

Pronounced the "Ne Plus Ultra" of Dry Plates.

UNSOLICITED TESTIMONIALS.

MR. JOHN CARBUTT, Wayne Junction, Philadelphia.

WORCESTER, MASS., December 25, 1885.

DEAR SIR: I have been using some of your new plates, emulsion 1024, sensitometer 24. I think they are, without exception, the finest and best plates I ever used. They are not only very fine and delicate in their structure, but, when properly manipulated, result in a blooming negative, possessing all the desirable qualities that any artist could wish for. I could most appropriately christen them the "Ne Plus Ultra Dry Plate."

Yours truly,

E. R. B. CLAFLIN.

MESSESS. HARRIS & KITTLE.

DETROIT, MICH., January 16, 1886.

GENTLEMEN: I am very much pleased with the Carbutt Plate; in fact, I call them the best plate *by far* that I tried so far. I find them especially useful for my theatrical subjects, as the quick emulsions are *absolutely instantaneous*.

Yours truly,

A. B. TAYLOR.

For Sale by all Dealers in Photo. Materials.

JOHN CARBUTT, Keystone Dry Plate Works, Wayne Junction, Philada., Pa.

THE UNRIVALLED STEINHEIL LENSES.

In Six Different Series and Forty Numbers, for
Every Description of Work.

These Lenses not only maintain their old-established reputation, but continue to lead in the field of progress.

Special attention is called to

Series No. II., Patent Antiplanatic, the newest conception in lenses. For Instantaneous portraits, Large Heads, Full Figure Groups, Architecture, and Landscape. A marvel of illumination, depth, and rapidity. No Photographer or Amateur should purchase a lens before testing Steinheil, Series No. II.

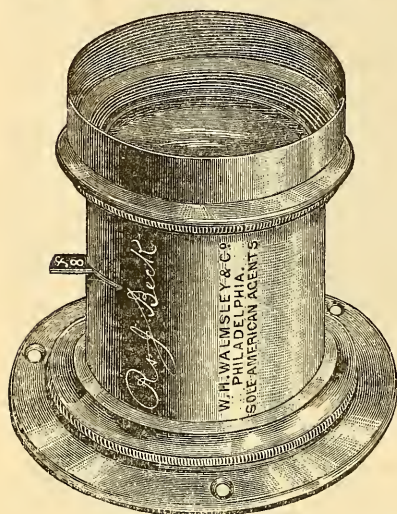
Series No. III., the famous Aplanatic tube, the illumination of which has been increased, and which is recommended for large Portraits, full-size Figures, Groups, Architecture, and landscape.

Series No. VI., Wide Angle Aplanat, which has no rival for copying Maps, Charts, Paintings and Engravings. It is the Photo-lithographer's favorite.

Send for Illustrated Catalogue and Price-List to your dealer or to

H. G. RAMSPERGER & CO., Sole Agents,
180 Pearl Street, New York.

BECK'S AUTOGRAPH RECTILINEAR LENSES.



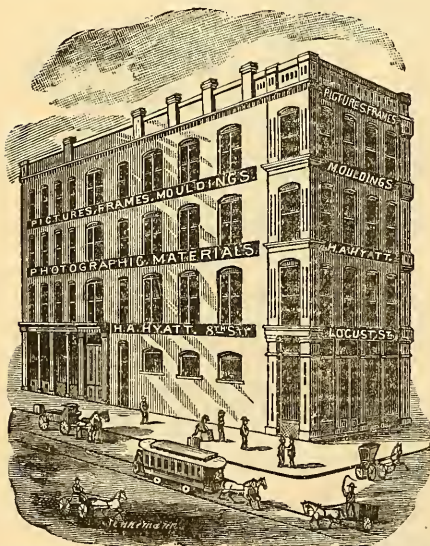
THESE extraordinary lenses attracted universal attention at the late Buffalo Convention; the specimens of work in Portraiture, Groups, Landscapes, Instantaneous Views, etc., executed by them being of unequalled excellence. A life-sized head, made with the 8 x 10 lens of 13 inches focus, was considered by the experts present, as being far ahead of any similar performance ever seen. A full description of these and our other specialties will be found in our full catalogue. *Mailed Free.*

W. H. WALMSLEY & CO.,

Photographic Stockdealers.

1016 Chestnut St., Phila., Pa.

"THE MOUND CITY" Photographic Stock House



Offers the Most Complete line of

Photographic Apparatus, Chemicals,
Picture Frames, Mountings, Mats,
Albums, Etc., in the market,
at bottom prices.

Professional and Amateur Outfits a Specialty.

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KUH'S LIGHTNING DRY-PLATE INTENSIFIER,

AND

KUH'S SENSITIZED PAPER STRETCHER AND DRYER.

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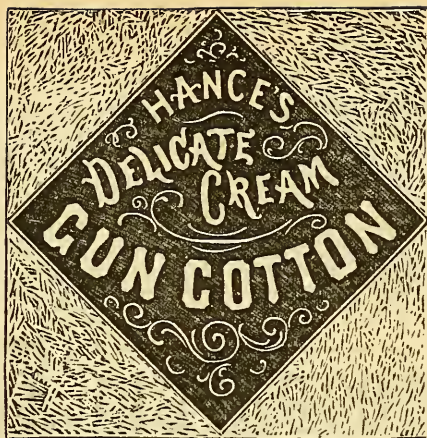
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Send for Illustrated Catalogues of Photographic Goods and Picture Frames.

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Is liable to break his Ground Glass, and to have no ready means of supplying a new one. This article floured upon plain glass will make a capital substitute.

HANCE'S
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Substitute.

Manufactured only by
ALFRED L. HANCE,
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AS A RETOUCHING VARNISH;

For making Ground Glass wherever needed; for Doors; for Skylight; for Camera Boxes, it has no equal. Good Ground Glass is hard to get; this Substitute never fails.

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Nitrate of Silver Cryst.
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Slightly acid with Nitric Acid. C.P.

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ANDERSON'S
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PHOTOGRAPHIC TIMES



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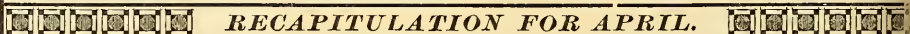
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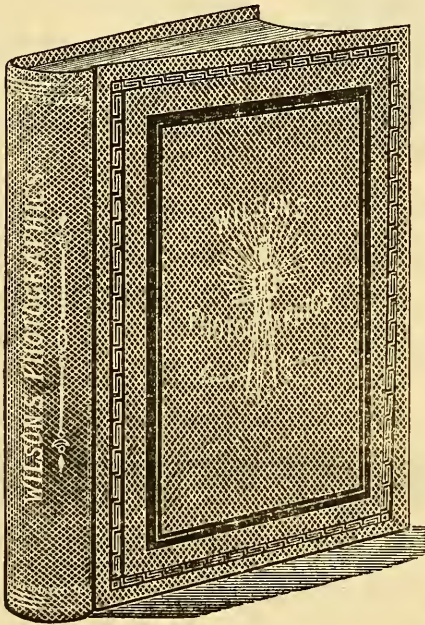
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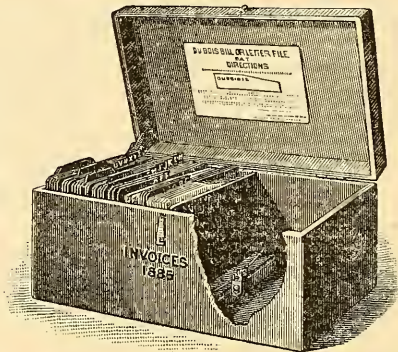
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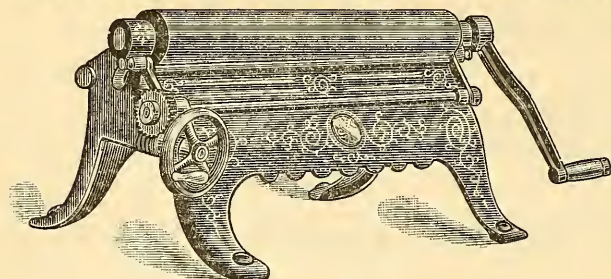
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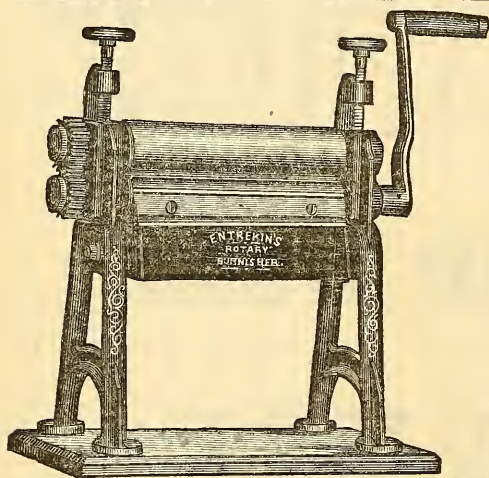
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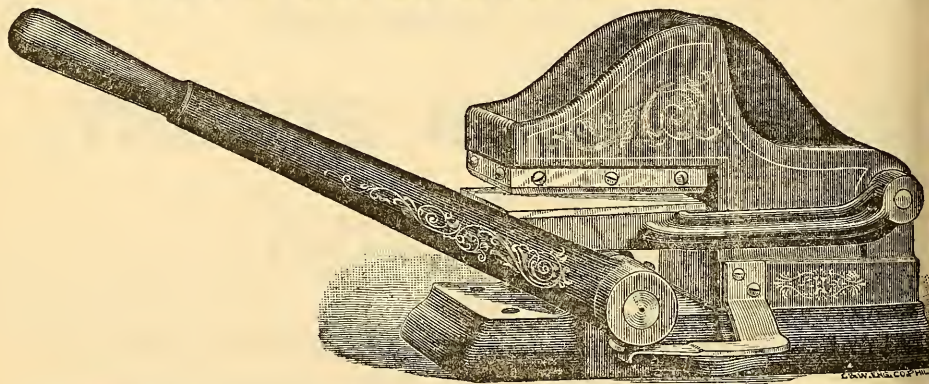
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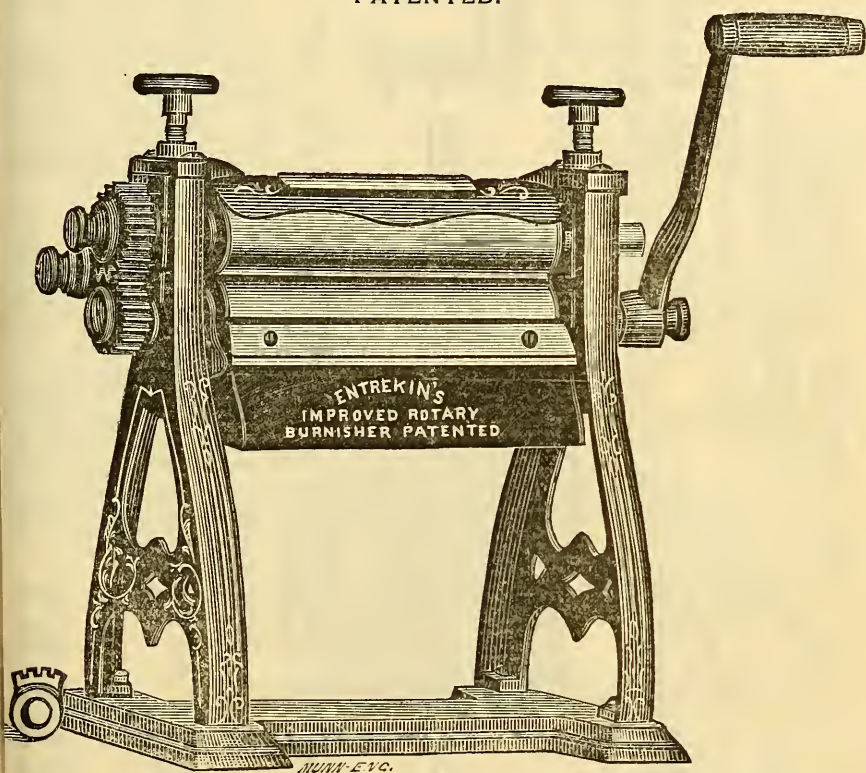
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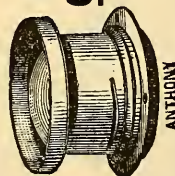
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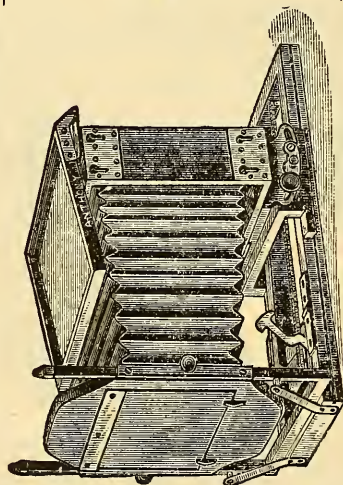
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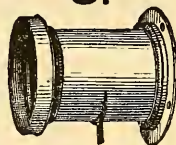
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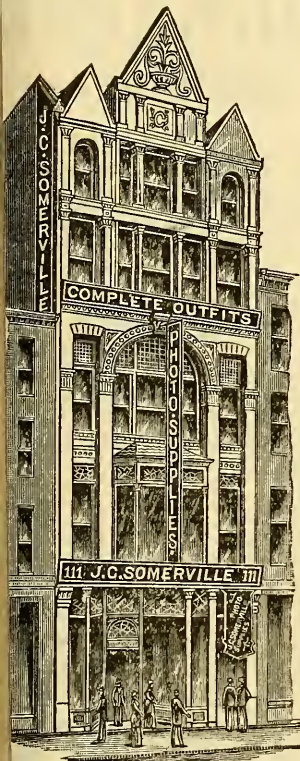
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The first short article that I read was worth the price of the book, and in looking it over find it contains an inestimable amount of valuable information which would not be found out in a lifetime of practice.—F. BURCHARD, Worthington, Minn.

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One hundred dollars would not buy mine if I did not get another. I do not see how I managed so well without it.—OSCAR CHROMWELL, Grizzly Flat, Col.

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Improve each shining hour,
And gather honey all the day,
From every opening flower!"

When Isaac Watts wrote that immortal verse, which for generations has served to shame many a laggard into photography or some other honest effort for a living, he only used the bee as a figure to represent the amateur and adept photographer, and to "gather honey" meant to read carefully from the "opening flower," which is plain English for photographic books.

And now, as the season of sunshine approaches, is the proper time to follow the injunctions of the wide-awake and observant bard.

To enable the enterprising "busy" ones to do this, we have combined with the Scovill Manufacturing Co., to offer, for sixty days only, certain of our publications at one-half price, *i. e.*, four dollars will purchase eight dollars worth of books, postage paid to any American address. Dr. Vogel's *Progress of Photography*; Tissandier's *Hand-Book of Photography*; Robinson's *Pictorial Effect in Photography*; Gihon's *Guide*. A few words as to these.

Dr. Vogel's *Progress* is the best instructor on dry-plate manipulation there is; no library is complete without it. It treats of all classes of work, including the æsthetic department and finishing and printing the negative. It is profusely illustrated; handsomely printed; bound in cloth-gilt, and is exhaustive on the subjects of light, chemistry, optics, apparatus, processes, technique, and amateur photography. It is published at \$3.00.

Mr. H. P. Robinson's *Pictorial Effect in Photography* teaches wrinkles and dodges that you would never dream of in your photography. It is as full of bright, brilliant ideas—told so pleasantly—as a film is of molecules. It is the best art authority you can study. It is amply illustrated, is bound in paper (cloth 50 cents extra), and is published at \$1.00.

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books on photography that has ever appeared in any country.

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Part second treats of the operations and processes of photography, describing and illustrating the studio and apparatus, the manipulations of the negative process; all the operations of the printing department; theory and practice, including the modifications required by various kinds of photography, such as landscapes, portraits, skies, and instantaneous photography, retouching, enlargements, dry processes, etc.

Part third enumerates the applications of photography, such as heliography, the Woodbury process, photosculpture, photographic enamels, photomicrography, microscopic dispatches during the siege of Paris, astronomical photography, photographic registering instruments, the stereoscope, photography and art, and the future of photography.

The appendix describes panoramic photography, the heliotype process, the phototint process, the most approved formulæ of the wet collodion process, a simple method of repairing dry plates, and English weights and measures.

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THE
Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XXIII.

MAY 15, 1886.

No. 274.

PATIENCE IN ART.

LEAVES.

Nature, the greatest painter, wrought at these
From early April till November frost:
Although her work was done with silent ease,
Think what a space those forms and colors cost!

MAN.

Nature takes twenty years to mould a man
Into the goodliest, most transcendent cast;
And grudgest thou to toil thy paltry span,
When soul-like marble will the flesh outlast?

*Charlotte Fiske Bates,
in Lippincott's Magazine for April.*

THE DEPARTMENT OF ART.

LINES.

WE closed our last paper in this department by promising something about lines.

We thought we had what we wanted to say pretty well shaped for our purpose, and felt a great deal helped by our visits to the annual exhibition of paintings at the Academy of Design in this city.

The evening before this writing, however, we were somewhat *unhelped* by a few hours' inspection of the paintings now on exhibition at the American Art Gallery, by the French "Impressionist painters."

A place like the last is no place for a learner in art, so, in what follows we shall adhere to the good old principles.

And one of the best of those old principles

is to pay attention to the *lines* of the picture—external and internal as well.

This is just as important as to give care to the position and to light and shade.

In the year 1873, at the Buffalo Convention of the good old N. P. A., we gave an illustrated lecture on the management of the lines.

FIG. 1.



In *Photographics*, we have tried to make Lesson A teach still more in the direction of lines of all kinds—curved, irregular, ver-

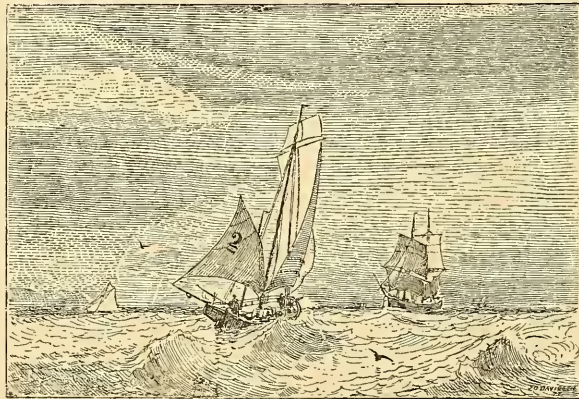
tical, horizontal, and diagonal. All kinds are used in the production of this portrait by Thos. Le Clear (Fig. 1).

Now there is not much else to say but to impress upon our readers the importance of close observation and constant conscientious care. You all have eyes educated enough to enable you to detect differences in pictures, to see that one holds more attractions for you than the other.

This is more largely due to the arrangement of the lines, than is usually accredited. We were newly impressed with this fact a few weeks ago at a lecture by Mr. Henry Blackburn, an English gentleman who has recently been exhibiting a fine collection of water colors and lecturing upon them in some of our large cities.

highly important; in peace it is, at least, interesting. Fortunately, too, we have now photo-mechanical processes, which can be used to reproduce in a few hours any illustrative lines that may be required. In illustration of the advantages of the pictorial art, Mr. Blackburn read a long and well-written account of a scene in the Hartz Mountains, and then showed by a cleverly drawn line cartoon how much better an idea of the scene could be given by a simple picture than by this elaborate description. He then read another letter from a correspondent describing a scene on one of the lakes of Switzerland, and going to the blackboard put into four lines the half column of description. The little marine view (Fig. 2) is *full* of lines of all sorts, and

FIG. 2.



In commenting upon "The Value of a Line," Mr. Blackburn said that by the value of a line he meant the methods whereby one could convey his ideas pictorially. There has been a great extension of printing in our day and yet very little advancement in our methods of expression. We still use descriptive words where it would be much easier and better to draw a few illustrative lines. A special correspondent is sent to the seat of war or to a distant country. He uses a clumsy language which requires a hundred lines of type to express what two or three lines could better express in a drawing. The pictorial method is absolutely necessary to give an adequate idea of the movements of troops. In war it is

shows how apt such an illustration could be made. One horizontal line represented the boundary of the lake; another of irregular form indicated the forest descending sharply to the water; a third represented the sail of a market boat, and its reflections prolonged into the water and indicating the character of the latter; a fourth gave the outline of the mountains in which the lake was framed. The picture was cleverly drawn, and was simply intended to show how a few simple lines, aided by the imagination, conveyed descriptions of scenery scarcely to be expressed in words.

Mr. Blackburn by drawings on the blackboard illustrated his points. Thus, he de-

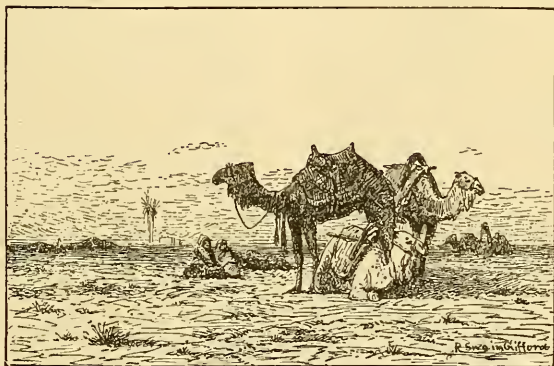
scribed a novel by Charles Reade, in which the central point of interest was a false accusation of murder, arising from a letter which, falling out of the upper window of a house near the corner of two streets, was carried by the wind around the corner to another house. The illustration showed a corner in plan. The positions of the two houses were indicated by cross hatching and the direction of the wind by arrows carried around the corner. Another drawing on the blackboard was very amusing because of the part the imagination of the audience had to play. It was to illustrate the story of a soldier and his dog passing through a doorway. A vertical line represented the doorway. A line near the top of the doorway, at the proper angle therewith, represented the bayonet of the advancing soldier, and a small projection near the bottom of the doorway represented the beginning of the dog. The lines being in proper relative positions imagination pictured the rest of the scene.

some day the best qualified reporter would be he who, using his powers of observation, was also qualified to sketch rapidly the scenes he wished to describe. In educating a pupil for this kind of work he must not try to *stick something into him*, but to draw something out. He must be encouraged to make close observation of things around him and to sketch truthfully from nature.

We are getting some bad attempts at illustration in our daily papers now, but the art is improving. Our grandmothers used to copy engravings with pen and ink, drawing line by line. For these copyists of other men's lines there is now no paying labor. The chemist, the photographer and the mechanical engraver do all that work for us, and we must learn to make drawings for reproduction.

We have neglected the study of means of expression, and now, with increased facilities for making fac similes, we should devote more attention to this subject. There is the talent with us, but it plays about like the

FIG. 3.



The speaker then called attention to examples of the shorthand of pictorial art in the form of some exceedingly clever line drawings by Caldicott—the merest sketches made into expressive pictures because the lines were just right as they were (Fig. 3), where life—by the camels and the oasis, and death—by the desert expanse,—must all be shown by the lines.

Mr. Blackburn thought that greater skill and certainty could be attained by all if attention was directed to the essential lines expressing form, life, and motion, and that

summer lightning when we want the precision required for a reproduction.

So much for the value of lines, and so much for illustration. In their management there are certain rules or principles which we must not forget, as follows: *Balance*, by which we give proper strength and solidity to the pictures. *Unity*, by means of which we unite the parts one with another, and *Harmony*, by which we are enabled to tell the story of the picture, and to complete it.

What is told further by Messrs. Coughton

and Smith in this line of study, will, we think, harmonize and unite with what we have said. Next time, something about "Technique."

COLORING POSITIVE PRINTS.

THE *Bulletin de la Société Versaillaise* has published a very complete paper on the coloring of photographs, presented by M. Mathieu, one of the most distinguished members of this society, and from which we make the following extracts.

We will commence by speaking of the coloring of prints made on albumenized or salted paper.

Salted paper seems better adapted to aquarelle, and albumenized paper to miniature painting. Nevertheless, both of these processes may be used for each of these kinds of paper. As to oil painting, it can best be done on albumenized paper.

Albumenized paper requires no preparation to receive the oil paint; salted paper, on the contrary, should always be sized. There are some advantages, however, which we will indicate later, in making a water-color picture on unsized paper.

-sizing the print on salted paper.

Among all the processes used for this purpose, here is one that is simple and successful.

In a vessel containing a pint of water, place half an ounce of white gelatine cut into small pieces, and heat to the boiling point, stirring with the spatula. In a second vessel, containing also a half pint of water, place one ounce of alum, and heat until complete solution. Now pour the contents of the second vessel into the first, agitate again in order to mix well, filter the whole through a cloth and allow to cool. At the moment of using this size it should be gently heated over a water bath, and applied with a flat brush to the two sides of the print. But it would be better, however, to place the print in a flat dish, filled with the preparation, and allow it to remain until complete imbibition. Now, dry in the same way as sensitized paper coming from a silver bath. The print is then in condition to receive the aquarelle or miniature coloring.

COLORING PRINTS ON ALBUMENIZED PAPER.

Oil colors take very well on albumenized paper; but to avoid oily spots it is necessary to coat them previously with an alcohol varnish. Albumenized paper will not take water colors unless, by some process or other, the brilliancy of the albumen has been removed, impairing thereby all its qualities; but this paper receives very well a coloring made with albumen colors. These colors are found in the shops, but it is better to prepare them one's self, because the quantity of albumen and the other substances added may be measured in accordance with the effect to be obtained.

Here is my mode of proceeding:

In a solution of white of eggs of the consistence of a thin syrup, I add one-quarter in volume of ordinary water, containing in solution, at a syrupy consistence, three parts of gum arabic, and one part of rock candy. Pouring one or two drops of this mixture on the palette, I rub on this liquid the cake of paint, which mixes intimately with it. The color, thus diluted, takes very well on the albumen. To facilitate the superposition of the coats, as well as to allow enamelling, if necessary, the property possessed by alcohol of coagulating albumen may be utilized by wetting occasionally the finished or unfinished print with alcohol at 95°, with a badger brush. This operation may be boldly done when the painting is dry, and without fear of removing the albumen colors which do not dissolve in alcohol. It must be remarked, however, that the layer of color not being composed exclusively of albumen, is not rendered completely insoluble by the alcohol, and would be removed by the application of a brush wet with water; but it becomes less soluble. This use of the alcohol allows one to judge of the effect produced by the painting after enamelling or varnishing, and consequently, to make the necessary changes and retouchings. No attention need be paid to the oily spots that the alcohol seems to produce, they are but momentary, and rapidly disappear as the alcohol evaporates. It is possible to give to the photographic print, tones more or less warm influencing the color of which they form the under surface. To obtain

these warm tones, the print untuned, but fixed with ammonia or hyposulphite of soda, will answer the purpose. As to the cold tones, the print toned gray- or blue-black, will give the desired effect. In general it is better to make use of warm tones, inasmuch as it is easier to give to a picture a cold aspect than to impart to it the warmth which might be wanting. The choice of the tone of the print is important in all kinds of paintings on photographs: aquarelle, gouache, pastel, miniature, or oil.

AQUARELLE.

Aquarelle painting, so difficult on account of the freedom, the rapidity of execution, the lightness and freshness which it requires, and which constitute all its charm, is of very facile execution on photographic prints made on salted paper and afterwards sized. In fact, they require but simple washings of tints over each other, followed by some retouching, with the addition of gum water in the principal strong points to increase the transparency.

A paper rougher than that usually used in photography, even should it be much inferior in a photographic point of view, is to be preferred; in every case it is indispensable to use unsized paper; if the print requires sizing it can be done after it is finished.

MINIATURE.

What has been said above in regard to the tone of prints, is also applicable to miniature photography. The print on salted paper should be sized before applying the colors and treated as for a miniature on ivory or paper, taking into account in the mixture of colors the tone of the print which is to be painted. If the print is made on albumenized paper, the colors should be prepared with albumen, and care be taken to avoid passing the brush over the same place twice in succession, so as not to remove the under coats. By coating with alcohol from time to time the surface of the print, so as to cause it to be penetrated, the coats will become less and less soluble, rendering it easier to return to the portions already worked in order to finish them.

PASTEL.

To make a pastel take a print enlarged by

the known processes, and which has been submitted to the ordinary preparation for receiving the pastel. If, however, the print is made on silver paper, after sizing, it should be treated with a concentrated solution of alum potash, or else by adding to the gelatine sizing bath some pumice stone reduced to a very fine powder and passed through the sieve.

PAINTING, OR MINIATURE IN OIL.

To paint in oil upon a photograph, it suffices to cover with alcohol the print made on albumenized paper. After evaporation apply a coating of alcohol varnish.

A WASHINGTON lawyer, in commenting upon the "division of labor" plan adopted by French lawyers and others, says:

CAMERA-ING LAWYERS.

"The same eye does not seem to follow the case from point to point, but it goes through classifications of people. They have not the curiosity common to this country to know what becomes of something they had a hand in. The judges do not look over into each other's province. A man takes up a thing in France as he would do in an American shop and hammers at that alone, and he goes to his dinner or bed when he gets done with his portion and cares no more. For instance, I thought I would like to bring back with me photographs of some of their best lawyers and judges. I went to different photographic shops and could find none of them.

"After wondering if they ever allowed themselves to be taken at all by the instrument, I was finally told that if I would go to a private building I would probably get what I wanted. So I went to a house with little or no business semblance about it and asked for the name of a certain person, and was told to go upstairs, and I went around thinking I must be mistaken or misdirected, until finally at the top of the place I found a man who had no other business, (and he had no competitor) than to take the lawyers and judges of France. There you found them all, central and provincial, the lawyers of Paris and the lawyers of Marseilles. This man had the monopoly by a certain

sort of deference for that one business, and he took the pictures of no other persons than people about the courts."—GATH in *Cincinnati Enquirer*.

THE HUMOR OF IT.

THESE naughty, naughty boys have been "listening to the birds," and are sent from



their refreshment to the labor of telling us that Mr. Dumont's admirable picture appears in our current issue.

"It's no use talking," said the Cheap John to "Tom," the stockdealer's traveller, "these are hard times, and I can't pay you now."

"But I see your skylight is crowded."

"Yes, yes, it's always like that."

"Then, what are you howling about?"

"Why, some of them have been coming here every day for a week, and only about one-fifth of them can get near enough to the camera for me to focus."

"The most manifest sign of wisdom is continual cheerfulness."—*Montaigne*.

A woman—in the reception room who has the knack of keeping waiting sitters in a good humor should have "wisdom."

EXHIBITION OF THE PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.

After many delays our exhibition has opened and closed. It was a success; a perfect success. The Art Association kindly offered the use of their rooms, an offer which, it is needless to say, was gladly accepted.

Never were photographs exhibited under more favorable circumstances. The large exhibition room is fifty feet square, and lighted by eleven skylights. Off this is a smaller room, twenty by twenty feet, and lighted in the same manner. At night the light is equally good, a row of gas jets around both rooms and a system of reflectors illuminating every square foot of space. The walls are finished with a dado of hard wood two feet and a half high, and above this is the space for hanging pictures, six feet high and covered with dark maroon cloth. Off the exhibition rooms is a lofty hall fifty by seventy feet, with a large stage. This hall seats eight hundred people, and was used for lectures and lantern entertainments.

The exhibition remained open from April 6th to April 10th, inclusive. On the opening night the rooms were packed. At half past eight o'clock the audience assembled in

the large hall and the exhibition was formally opened by Mr. Tyler, who gave a half-hour lecture on photography. The lights were then turned down and Messrs. Runyon and Lowden threw upon the screen a large number of slides (a hundred and fifty in all) made by the different members. The oxy-hydrogen light was used with a twelve foot disk. Messrs. Lowden, Gibbs, Oliver, Davis, Brooks, Woods, Tashcira, and Smith, were the largest contributors of slides.

On Wednesday evening April 7th, the same programme was repeated, while the rest of the week the rooms remained open from 9 A. M. to 6 P. M.

It is impossible to calculate how many persons attended the exhibition, as no admission fee was charged, and the rooms were practically thrown open to the public, except upon the two invitation nights. But it is safe to say, that eight or ten thousand people visited the rooms during the week.

There were eleven hundred prints upon the walls, which is the biggest show that photography has ever made in a non-competitive exhibition.

Twenty-six members contributed prints, and all the pictures on the walls were the work of members of the Association, with the exception of two or three old and rare prints, which will be hereafter noticed.

Most of the prints were double mounted, and owing to the dark maroon background, light-colored mounts were generally used. The hanging committee performed their work judiciously and the prints were tastefully arranged.

To give a full description of the different prints would be an impossibility. The following is a synopsis of the most notable work:

Mr. W. H. Lowden exhibited a large collection of landscape and instantaneous views, mostly whole plate size and mounted on large light-green or tea-colored panels. His work is so uniformly excellent that one would like to describe the whole collection. His best picture, "A Dusty Road," has been reproduced so often that a description is not necessary. So, also, with his touching tale in two chapters: Chapter 1—"I Broke my Horse;" Chapter 2—"Papa Fix Him."

A picture of "A Balloon Above the Clouds," is very striking, and was a puzzle to those unacquainted with the art of double printing. "After the Storm," "The Golden Gate," "Country Pastimes," "Adrift," and "Feeding the Chickens," are also gems.

Mr. Lowden has a large and fine collection of cloud negatives which he uses with great skill and taste. Perhaps the most wonderful picture shown by Mr. Lowden, however, is a print of the moon. The negative of this print was made at the eye-piece of a ten-inch reflecting telescope, and measures five inches in diameter.

Mr. W. C. Gibbs made a large exhibit, mostly from whole plate negatives. The prints were all double mounted on large panels, light-green and primrose being the colors mostly used. A series of six hunting scenes in the Tules were wonderful specimens of instantaneous work. These were made in the middle of winter, yet they are full of detail. They are toned to a rich velvet black, which suits the subjects perfectly.

Another print which attracted much attention is a night-blooming cereus, natural size, and taken by the light of an oil lamp at night, because, as was explained, that is the only time that the creature blooms.

"Firing a Harpoon Gun," shows the track of the rope plainly. Several prints of Chinese Junks and Hay Schooners are very good and full of detail.

Harry L. Jones contributed some fifty or sixty quarter plate instantaneous views, mostly of marine subjects. These were uniformly good and nicely toned, printed, and mounted.

Mr. E. L. Wood's collection attracted more notice than any other prints on the walls, and this fact shows that the public have a higher artistic sense and appreciation of the beautiful than they are generally given credit for.

Mr. Woods exhibited about twenty 4 x 5 platinum prints, mounted on drawing paper, with a plate-mark stamped in; and a more delicate and exquisite set of little pictures was never exhibited. They were mostly landscapes of English and California scenery, and were a revelation to every-

body; showing what can be done with platinum when properly handled. Mr. Woods was equally successful in his 8 x 10 enlargements on Eastman's bromo-gelatine paper (letter C). His negatives lost little or nothing in the enlargements, in fact, in some instances there was a positive gain, while the soft effects and beautiful tones obtained on this paper were much admired.

Mr. W. L. Oliver began to dabble in photography in 1860, in South America, and for several years used the collodion process, making his own albumenized paper, collodion, and, in fact, about every thing else. In 1867 he dropped photography, but caught the craze again in 1885, and is now an enthusiastic dry plate worker. His collection may be divided into two parts: First, pictures made by the wet process in South America, from 1860 to 1867, and, second, prints from gelatine plates in 1885 and 1886.

There were some wonderful pictures in the former class, and leaving rapidity out of the question, it is hard to see wherein lies the boasted superiority of the modern photographer and his methods. True, the prints made a quarter of a century ago are not so new and bright looking as the freshly printed and mounted picture, but for delicacy, detail, and atmospheric effects, these prints cannot be excelled to-day. It is only by contrast with the newer work that they look a trifle faded; but no more so than would an etching or engraving in the same space of time. Some forty of these prints were shown, ranging from half plate to about 8 x 12 in size. Of the smaller prints the most noticeable are two copies of paintings made with a cigar box for a camera and a burning-glass for a lens.

The labor of obtaining some of the large negatives must have been stupendous. For example, there are several prints of La Cordillera, Chile, 18,350 feet above the sea. The "Coral de Carretas," Chile, contains moving figures which are practically sharp, showing that the negative must have been taken in a small fraction of a second.

Mr. Oliver's prints from dry plate negatives are mostly half plate, and embrace a large series of instantaneous views made in Alaska last summer, and on board ship.

Several prints of the great Muir and other glaciers are very fine.

Mr. R. H. Naunton showed several 5 x 8 landscape and instantaneous views. Fort Point with curling waves and breaking surf is very good.

Mr. Luther Wagoner exhibited a series of twenty 5 x 8 prints, mostly landscape. These, although not remarkable in any way, were all specimens of good, clear, brilliant work, and careful printing.

The exhibit of Mr. Virgil Williams is worthy of especial notice and attention, as adding a new bulwark to the art side of photography. Mr. Williams is the director of the Art School and School of Design, in San Francisco, and is an artist of more than local fame.

In turning to photography his artistic perceptions have been exercised to the utmost, and consequently his exhibit was a revelation to most amateurs. His pictures are small, 5 x 7, but each one tells a story. Besides working in silver, Mr. Williams has secured some fine effects on the much abused ferro-prussiate paper.

The following titles will give as good an idea of Mr. Williams's work as would have a column of description: "The Art Critic," "A Country Dark-Room," "A Chicken Ranch," "The Old Hunter," "Picking Peaches," "In School," "The Laborer," "The Gleaners," "The First Letter," and "A Sketching Party."

Mr. W. S. Davis contributed some twenty whole-plate prints, mostly landscapes. His "Head-Water of the Sacramento," and "On the McCloud River," were excellent.

Dr. C. L. Goddard, a member whose acquaintance with photography only dates back a few months, exhibited several very creditable half-plate landscapes and marine views, and also a small vignette of a little girl playing with a kitten, which was extremely well done.

Mr. L. C. Clark showed several camping scenes, views of Lake Tahoe, and of Dartmouth College.

Mr. W. M. Speyer exhibited twenty 5 x 8 and whole-plate prints, embracing a large variety of work. His interiors were excellent, and were not marred by any trace of halation. His marine views and landscapes

were all good, sharp, and brilliant work, and the prints were well toned and handsomely mounted.

Mr. Sidney M. Smith's collection embraced some thirty 5 x 8 views, mostly groups and figure pieces. Mr. Smith is very happy in this class of work, and his prints attracted attention.

Mr. Sanford Robinson being absent in South America, was only represented by one print, a 11 x 14 instantaneous view of turkeys and chickens.

Mr. Mark Requa contributed eighteen whole-plate prints, mostly landscapes and mining scenes. His "Water-Wheel, Shasta County," was a gem.

Dr. S. C. Passavant was represented by a series of twenty-four 8 x 10 transparencies on plates of his own manufacture. These were made in the doctor's usual careful style, and were beautiful and delicate specimens of this class of work.

Mr. George Tasheira contributed about sixty prints of various sizes and subjects. The printing and mounting were especially good. A series of views (5 x 8) at Monterey, showed splendid composition and choice of subject, and the same may be said of a number of views at Provincetown and Salem, Mass. His "Italian Fishing Boats" was a very picturesque little bit, and, in fact, the entire collection did credit to the ability and artistic taste of the exhibitor.

Mr. A. J. Treat showed seven small prints on bromide paper. They were all pictures of children in costume, and were entitled "One Little Maid," "Yum Yum," "The Coquette," "The Flirt," "Simplicity," "Innocence," and "A Merry Maiden." They were double mounted on eggshell-paper and rough Chinese matting. The effect was novel and excellent. Mr. Treat has had remarkable success with these little studies, and the subjects, posing, and mechanical details were simply perfection.

Mr. F. H. McConnell is the great shutter maker of the Association. Full of good ideas and always obliging and ready to help others, it has got to be a standing joke that "Mac" never had time to make pictures, as he was always busy helping somebody make a shutter. His exhibit, therefore, was a surprise to the members, as he contributed

thirty prints from quarter and half-plate negatives. "En Route," a half-plate print of a bicycle excursion, was very sharp and good, while his quarter-plate views in Chinatown, were all excellent. A number of views mounted on circles, squares, palettes, and ovals, and then tacked on to a large white velvet panel, gave a pretty and novel effect.

E. R. Abadie showed eighteen 5 x 8 landscapes, mining, and snow scenes, besides two portraits. His snow pictures were all crisp and bright, and were the result of correct and careful exposure and development. A portrait of Abadie, Jr., was extremely good.

Mr. S. A. Brooks contributed about two dozen 5 x 8 prints mounted on maroon panels, and then remounted on large primrose-colored mounts. An instantaneous view of Sailboats on Lake Merritt, through the trees, was excellent, though a trifle over-toned. "A Chinese Junk," was sharp, brilliant, and full of detail. The mounting of this print was very neat. The print was first mounted on a small palette, which was tied by ribbons to a large panel. In fact, Mr. Brooks gave the members several new ideas of novel mounting. For example, on one panel were arranged three prints first mounted on small bevel-edge mounts, and then joined together after the style of a Chinese puzzle. Some views on the Russian River were also very picturesque and effective.

Mr. S. C. Partridge made a very large exhibit (some seventy prints in all), ranging from 4 x 5 to whole-plate in size, and embracing various subjects and classes of work. Some snow scenes, showing the snow-sheds in the Sierras, were well done, as were also some views on the South Yuba. The best work of Mr. Partridge was shown in his cattle pieces. "The Noonning," "Defiance," "Idle Curiosity," and "Don't Care a Toss Up," were admirable specimens, and were thoroughly artistic pictures.

Mr. H. London exhibited some twenty whole-plate prints from plates of his own manufacture. If the prints be taken as a standard, then Mr. London's plates cannot be excelled by many plates in the market, as his prints were all clear, bright, and beautiful specimens of landscape work.

"Sunol Creek," "Lagunitas," and some views on the N. P. R. R., were especially worthy of notice.

Mr. F. A. Blackburn's exhibit consisted of thirty-five landscape and marine views, all nicely printed and mounted. These were 5 x 8 in size and double mounted on large light panels. "Alders at Blithdale," was a charming study, while several landscapes in Mendecino County, at Belmont, and at Monterey, were capital.

It would hardly do for the writer to dwell at any length upon Mr. Tyler's exhibit, which embraced over one hundred and fifty prints of all subjects, shapes, and sizes. Not that he does not appreciate his own work, but he would prefer to have somebody else toot his horn for him.

One of the most interesting pictures in the exhibition was a 4 x 5 print, made by the late Henry T. Anthony, in 1859, and presented to the Association by Mr. J. B. Wandesforde. It is an instantaneous view in New York harbor, and is sharp and clear. A coasting schooner in the foreground is pitching her nose into a heavy sea, evidently made by the wake of the passing vessel, from which the negative must have been taken. The exposure could not have been longer than the twentieth of a second. The print is a trifle dirty and faded, but full of interest to all photographers.

An old copy of Daguerre, presented by Mr. Week, was also of interest.

Mr. Partridge made a large display of apparatus, all of which was closely examined by our visitors.

We believe that this exhibition has advanced the cause of photography in California, and that it will be the means of largely increasing the membership and standing of the Association.

W. B. TYLER,
Corresponding Secretary.

THE OPEN CORNER.

"When a storm of sad mischance beats upon our spirits, turn it into some advantage by observing where it can serve another end."—*Jeremy Taylor*.

That is, profit by your blunders. It is a

good plan to go to your books for help when you fail, but it is also good exercise to *think—and it pays*.

"He who calls in the aid of an equal understanding doubles his own."—*Burke*.

But where is the photographer who does not think he "knows it all?" If you find such a one, he is of "the very best."

"Each year, one vicious habit rooted out, in time ought to make the worst man good."—*Franklin*.

Begin by foregoing the neglect of art principles under your skylight.

"Give us, O give us, a man who sings at his work!"—*Carlyle*.
Amen.

"He that of greatest works is finisher, Oft does them by the weakest minister"—*Shakspeare*.

Shakspeare must have been a photographer—at least he was a poser. This stanza surely means do not use too much gold in your toning bath; do not force development; do not over-retouch your negative; do not ignore the poor, timid, "weak" suggestions of THE PHILADELPHIA PHOTOGRAPHER.

"The greatestest of fools is he who imposes upon himself."—*Shaftesbury*.

Yes, the one who flatters himself that he "don't want no magazine," and then gets enamelled or over-developed by every process pedler who comes along. Moral, now is the time to subscribe.—*Aunt Dottie*.

The *Times* has been asked to explain a recently expressed preference for a mezzotint engraving over a photo-gravure or other "exact reproduction," so-called. A work of art cannot be exactly reproduced in any form. A literal translation into a new language of a poem is not a complete reproduction of that poem. It has of necessity lost something in the process; it has probably lost that one thing which gave it its chief value—the poetic form; it has become mere prose. But the poem may be transferred into a new language in such a way as to preserve the most valued part by sacrificing some things which are not essential. In

the same way, it is not possible to reproduce with literal exactness a picture which often depends for its charm upon delicately modulated colors and tones. These can only be translated by intelligence capable of finding in black and white those notes which will produce upon the eye the effect produced by the colors of the original. In the photograph and the resulting photo-gravure red and yellow tints produce darkness far more intense than blue ones, which to the eye are of equal force. The skilful engraver will seek for tones which will give to each of these colors its proper value, and in many other ways will succeed in presenting a translation into a new form which will preserve the essential qualities of the original, even if some details be sacrificed.

VIEWS FROM MY OFFICE WINDOW.

AND now it is May. Milton, the poor, dear blind poet, once able to *see* through English spectacles, or perhaps with his own eyes, wrote of

"The flow'ry May, who from her green lap throws
The yellow cowslip and the pale primrose."

But it is not so from *my* standpoint. The trees, however, are in their grandest photographic condition. My camera has been used, and presently I hope to prove it. Away over in the centre of the square is the fountain. Around this fountain now is a magnificent ring of tulips of red and yellow and white, which look like the striped turban of some great sheikh of Cario or Damascus. It is superb, and an orthochromatic effort will be made for its true color value.

Further on are mounds *covered* with daisies, "quite English," and pansies, whose comical faces seem to mimic all the types one would see in a \$2 a dozen for-cabinets-club-gallery for ninety days.

April subsided with some more showers, and the usual "strikes." The downfall tried to "boycott" the regular channels, and held an overflow meeting under my window. Boys and girls too went in deeply.

After the storm had cleared away a new candidate for public favor appeared. Hung by a cord around his neck was a frame con-

taining six or nine very pretty 4 x 5 landscape photographs. Above and below them were lines of one and a half inch polished brass letters, which informed the dazzled pedestrians that "a photographic outfit for \$10 all complete, could be had of Theodore Obeig, 17 Murray St., N. Y."

Moreover, and truthfully, "a healthy and delightful diversion for all." The man gave me a catalogue over which I am now moralizing.

I ALSO saw two corpses lying out under my window the morning of the storm. One was of a horse which had been required to drag a load of coal in face of the cold and rain and had "died in the harness." They hauled off his valuables, pulled him up on the asphalt pavement out of the way and pretty soon a covered ambulance came along and took him away—not any too tenderly.

The other corpse was, *E pluribus unum*, a discarded umbrella. I saw many a one do as it did—succumb to the persuasive coercion of the wind and turn top in—but, as a rule, their masters held on until things took a turn. Others were allowed to have their own way about it and after a violent struggle would fall to the ground, wet, and ribs exposed, forsaken, and forlorn. I witnessed the death-struggle in this case. It was indescribable. I do not know a more sorrowful example of distortion than an umbrella in this condition.

I SAW a happier horse go by yesterday. He stood diagonally in an uncovered ambulance and was being drawn up 4th Avenue. A warm blanket was upon his back, and a lot of messenger boys hung on to the ambulance. As they rounded the curve at the right of my window, the horse turned his head to the left, where the dead horse laid, with a sort of a thank-God-I-am-not-the-poor-fellow-I-saw-lying-there-the-other-day look in his face. He really seemed to enjoy the luxury of being sick. I do not think he had "struck" because "the line" had employed a fresh arrival of horses from Kentucky.

RIGHT after he had passed by I saw a man acting in a very singular way down in

the square near the fountain. He seemed to be annoying a nurse girl who had two merry looking little children in charge, with a baby in a richly lace caparisoned coach. I saw him first stand in front of the group as though to head them off. Then, when they walked away, he followed and stood at their side. A third time, after they had escaped from him he went and sat on a bench near them for a moment. Then they went in one direction and he came toward my window. Just as he reached 14th St. he removed from under his vest a circular object, nickel plated and so polished that the reflection from it astigated my eyes for a moment. A string hung from one side of the object. He had let the cat out of the bag. It was a Gray Vest Camera. But then he was awfully green about using it.

I saw it done better next day, by Mr. Chadwick, the visiting Secretary of the Manchester Photographic Society, who caught me when I halted a moment to speak to a photographer.

You should stand very still when you "fire" the vest camera or you will find your "game" out of focus.

I SHALL tell what I saw at Mr. Sarony's door, in my next, with a few words about Mr. Hugh O'Neill, who first suggested the use of "brains" in iodized collodion.

A PHOTOGRAPHER has "opened" a stereopticon advertising show over on the right and you can judge of what there is to see out of my window by the following extract from his circular:

"Situated in the heart of this great metropolis, facing an open area of eighty acres covered by over two lines of streets and crossed by seven lines of cars and stages; surrounded by twenty-eight hotels and eighteen places of amusement, lecture halls, and many others in course of construction, our thoroughfare is traversed nightly by from fifty thousand to one hundred thousand people—of the best class of citizens, and the notable people of the world may be amongst us. Being within easy line of view, our artistic displays may be observed without the necessity of raising the head. No other method will give so much publicity for so

little money, and the artistic character of the display is unlimited, making a lasting impression on the mind."

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

WHAT is the best form of condensers for the magic lantern? Would a pair of plano-convex six inches—that is, each lens six inches focus—make a combination too long in focus, or is three inches about the usual focus employed? An answer through the journal will oblige

A WELL WISHER OF THE P. P.

Answer.

Three to three and a half inches is the usual focus employed. Triple condensers (Morton's or Cresson's formula) give additional brilliancy.

FROM Priest's Valley, B. C., a photographer writes:

Enclosed is a sample of silvered paper, upon which I wish you to pass your opinion as to the cause of its peculiar appearance. You will no doubt be surprised at my ignorance, especially as I have a copy of your *Photographics*, but I am in the same fix that the Dutch captain was in when caught in a storm, and was asked where his anchor was, replied he had left it at home. Well, I have not left the *Photographics* at home, but I have left it, with a large quantity of my outfit, in the canyons of the Rocky Mountains, and don't know whether I will ever see them again, except they escape those fearful snow slides which devastate the valleys among the Rockies. In all my experience I have never seen paper that acted like this before. I am at a loss to account for it, except that the bath may be too alkaline or weak.

I have not had a hydrometer for over two years, as those I brought into the mountains got broken, and those I sent for got broken before they reached me, the consequence being that I guess at the strength of the silvering solution. I supposed it was rather weak, and I used a little nitrate of ammonia in it, and by testing it with litmus paper it appears to be neutral, but it may have an alkaline tendency. I may mention

that, as I had no cement, I used a little pine gum to mend a crack in the silvering pan, but I do not think the gum is the cause of it. Please let me know your opinion.

Answer.

The sample of paper alluded to is afflicted with "tear drops," and *very much* afflicted, the silver having penetrated through the albumen to the back. Our British Columbia friend has allowed his paper to become too horny or hard, so that it repels his silver solution, or his bath is too strong.

In the first case, allow the paper to remain over night where it will become limpid, or rub the surface before silvering with a pad of cotton wool. If the bath is too strong, a few experiments will prove it. Remedy is obvious.

In answer to C. H. Townsend: If some dry plates are over-exposed, either behind a negative or in the camera, and developed as usual, the resulting image will be the reverse of what a normal exposure would have produced. This is explained on the theory that a prolonged exposure will undo or reverse the effects of a proper exposure. The lights receive so much exposure that they will not develop at all, while the shadows receive much less light and develop the strongest part of the negative or positive, as the case may be. This fact has been made use of to obtain reversed negatives from ordinary negatives in the production of photo-mechanical prints. With plates properly prepared for ordinary photography, it is almost impossible to obtain even a partially reversed image.

FRANK N. BLAKE.

NORTH ADAMS, MASS.

In answer to P. P. W.: Acetic acid, either the glacial or that of ordinary strength (sometimes called "No. 8"), will readily dissolve gelatine. F. N. B.

To clean glass for chemical work, soak them in a ten per cent. solution of potash for twelve hours, rinse thoroughly and immerse for twelve hours in a ten per cent. solution of nitric acid; wash thoroughly, and dry spontaneously.

DEAR SIR: I see in PHILADELPHIA PHOTOGRAPHER of April 3, 1886, page 207,

that Anna M. Bank is in trouble about a negative of her little friend. You will find in the PHILADELPHIA PHOTOGRAPHER for January, 1879, at the bottom of page 7, that equal parts of alcohol and liquid ammonia will remove the varnish.

Very respectfully,

P. GANSON.

Those having occasion to use acids will find a strong solution of bicarbonate of soda an excellent neutralizer. It can be safely applied to the eyes in case of acid getting into them. The effect is instantaneous, and leaves no bad results.

HOW ROBERTS & FELLOWS MAKE OUR PICTURES.—The following is a sample of the many letters we get on this subject.

DEAR SIR: In reading about "Our Picture" in the April number, I see you state the prints were made by the formula given in the PHILADELPHIA PHOTOGRAPHER a short time ago. I wish to inquire what number it was in? I have looked back but find nothing. By letting me know you will greatly oblige

Yours truly,

H. D. MOULTON.

Printer.

FITCHBURG.

We referred the above to Messrs. Roberts & Fellows, adding please give me your entire method for PHILADELPHIA PHOTOGRAPHER and return with this. Their obliging answer is as follows:

MR. EDITOR: We have had so many inquiries about our plan of working the N. P. A. paper that it behooves us to give our method in full, which is very simple. We use a plain silver bath made neutral, if necessary, with carbonate of soda (we prefer it slightly acid). It is rarely turned out of the dish, only to clarify it when it becomes clogged with albumen. This is detected by red spots, streaks, transparent spots, etc. When in this condition it is boiled down to almost dryness, rebuilt, and sunned for a day or so, then filtered for use. The strength is usually kept at 50 grains, varying according to the temperature and season. The paper is always buffed with a swab of cotton flannel, quite vigorously.

This is to remove any sweatiness usual to glazed surfaces, packed together, as paper is. After this treatment float for one and a half to two and a half minutes, according to temperature. Dry *perfectly* and fume, in summer fifteen minutes and in winter twenty to thirty minutes. Now, proceeding from the printing room (after the day's printing is done) to the wash room, we find a long sink, filled from end to end with trays 20 x 24 (or larger as occasion demands) in which the prints are washed. We just give them three thorough changes in clear water. They are then ready for toning which is carried on in many ways by many photographers, but we prefer the simplest methods by which we can secure perfectly satisfactory results. The bath we use will produce a warm brown tone, or a rich red, or blue, as desired. By the addition of a little acetate of soda, saturated solution, a chocolate-brown tone may be obtained. After toning we fix in usual manner followed by a strong salt solution, and then thoroughly washed in about twelve changes of pure water. By this means the hypo is quite thoroughly eliminated. We append the formula we use, which, if followed carefully, will give good results. One thing must be understood, however, viz., that these remarks apply only to the fair *average quality* of negatives, not to thin, poor, or underexposed negatives or exceedingly overexposed plates. They require a little different treatment.

1. Silver bath: water, required bulk; silver, 50 to 60 grains to ounce; neutralize, (sal soda) with carbonate of soda; float, $1\frac{1}{2}$ to $2\frac{1}{2}$ minutes; fume, 15 to 30 minutes.

2. Toning bath: water, required bulk; gold, 3 grain solution, for 20 sheets, 3 ounces; make alkaline with carbonate of soda.

3. Fix with hypo, 1 pound to 1 gallon of water.

4. Strong salt solution.

Yours truly,

ROBERTS & FELLOWS.

PHILADELPHIA.

Who has had enough experience to help us out on this?

DEAR FRIEND: I have not asked you any questions for some time past, and I trust you will still have some of your old stock of

patience left, or that you have just got in a new supply, so you will not get vexed if this should be a little tedious. To come to the point, it is this:

I am about getting a large camera box, 20 x 24 inches, and a large lens to make life size heads, groups, and full figures, and I am at a loss to know just what kind of a lens, or whose make to buy, as there are several new ones just come into the market with great pretensions, and each one is claimed by the manufacturer or agent to be far superior to any other make.

I will mention three or four which I thought might fill the bill, and submit a few questions to you as to their merits.

1st. Dallmeyer R. R. D. L. Eq. for group, 4 in. $32\frac{1}{2}$, 22 x 20.

2d. Improved Euryscope No. 7, $4\frac{1}{2}$, $24\frac{1}{2}$, 18 x 22.

3d. Beck Auto. "Rect.," 9, $3\frac{3}{4}$, 30, 20 x 22.

4th. Ross K. Symmetrical, 4, 34, 18 x 22.

Now if there are any better to select from please call my attention to them. The price is not to be taken into consideration.

1st. What will be the average time with each lens under the same conditions of light with the same plate, and with full opening, making an eight inch head on a 20 x 24 inch plate?

2d. What will be the distance between the subject and the lens when making an eight inch head with each lens?

3d. What will be the distance between the lens and subject when making a twelve inch standing figure?

4th. Which lens will give the best defined picture out to the edges with full opening, when making a large group of ten to sixteen figures on an 18 x 22 or 20 x 24 plate?

5th. If you were buying one without a chance of testing it, which one would you risk on the reputation of the maker? I am told there are some in the market that will work very quick for a while at first, and then gradually get slower and slower.

6th. Which do you think would be the best all-round lens for out and indoor work? But it is principally for indoor work I want one.

If you cannot answer these questions to your own satisfaction, give me the address

of some one whom you think could and would do it for me, and oblige

Fraternally yours,

G. S. B.

DEAR SIR: In your *Photographics*, of which I have a copy, you speak of aniline blue, letter R., for preserving the whites. Where can I procure it and the price? Can you tell me the cause of my prints having a yellow shade? Everything is done with care, my silver bath is Powers & Weightman's, 50 to 55 grains to the ounce, to which I add sal soda, let it settle and filter, float $1\frac{1}{2}$ mins., fume 30, then wash the prints five times, and tone with sal soda. Toning bath, to which I add a little salt, fix in hypo not too strong, to which I add a little salt to prevent blisters, and a little bicarbonate of soda to neutralize. I use N. P. A. It is sold for white, but has a pink tint. Hoping you can enlighten me on the cause of the yellowness, I remain, etc.,

T. W. POWER.

Answer.

ANILINE blue can be bought from any druggist. We think it can be found quoted in Scovill Mfg. Co's., and E. & H. T. Anthony's catalogues. It is very powerful, a little will go a great ways. Perhaps your paper is kept too long and turns yellow from age, or possibly the paper, already a yellowish-white, is toned with too much soda in toning bath. White paper always has a yellow tint when finished, hence the advisability of using an off shade such as pearl, pensé, etc. The latter is much to be preferred, and by its use aniline blue could be dispensed with.

Your manipulation, is or seems all right. Take good care to keep hypo from the toning bath.—ED. P. P.

SOCIETY GOSSIP.

PACIFIC COAST AMATEUR PHOTOGRAPHIC ASSOCIATION.—A regular monthly meeting of the Pacific Coast Amateur Photographic Association, was held April 15th, at the rooms 318 Pine Street, President Lowden in the Chair.

Minutes of the last meeting read and approved.

The Exhibition Committee made their final report, and after a vote of thanks for their services were discharged. All the bills incurred, amounting to \$120.58 were approved and ordered paid. This uses up all the surplus cash of the Association and leaves it free from debt, and with a rapidly increasing membership.

The question of the Exhibition next year was discussed, and it was finally decided to have a lantern evening some time in the autumn.

The report of the Committee being favorable, Messrs. Treadwell, Treat, and Le Breton were elected active members of the Association.

Three gentlemen were proposed for membership.

Mr. Armes offered to present the Association with a bookcase, which offer was accepted with thanks.

Dr. Passavant presented the set of twenty-four transparencies exhibited by him, and a vote of thanks to the doctor was passed.

Mr. Tyler proposed the name of Mr. Runyon as an honorary member of the Association, and stated to the members that Mr. Runyon had kindly furnished the lantern used at the lantern evenings during the Exhibition and had manipulated the same. That while Mr. Runyon was a photographer only so far as was necessary in carrying out his special study microscopy—yet his knowledge and experience would always be at the disposal of the Association.

On motion the rules were suspended and Mr. Runyon was unanimously elected a member.

It was resolved to buy a fourteen inch burnisher for the use of the members.

No other business coming before the meeting, on motion adjourned.

SOCIETY OF AMATEUR PHOTOGRAPHERS.—Annual meeting, held in New York, April 13, 1886. The President read an interesting *résumé* of the work of the past year, and spoke encouragingly of the future prospects of the Society. The following

hints may well be acted upon by the membership of all societies :

"My idea of a society of this kind, is that a large number of members should prepare themselves to participate in discussions at meetings. We need more investigation and research. So far as I have observed, very few members have the time to spare to prepare papers and discuss intelligently important questions pertaining to photography, and this I take it, is depriving us of the knowledge of many useful hints."

The total membership of the Society is 128, showing a growth during the past year of thirty-five.

A number of interesting papers had been read, and liberal donations made to the library and to the general fund, and also of apparatus.

The President, in concluding a very long address, said :

Our relations with home and foreign fellow societies have been most cordial. The indications of the regard in which the Society is held by others, should spur us on to higher attainments.

As we have been progressive in the past, it is befitting that we should strive to do better in the future, using proper caution not to progress too fast. As intimated to you last year, I believed that it was advisable to furnish larger and better accommodations for the Society, realizing that they would become a necessity as our numbers increased.

With this end in view, it was unanimously decided by the Board that we vacate the present premises and look for other quarters.

After spending two or three months in search of suitable premises, the Board concluded to accept the offer of two spacious floors in the building No. 122 West 36th Street, near Broadway. These have been leased at a rental of \$900 per annum for two years, and will be our future home.

The increased rent we find is necessary, if we intended to carry out the objects of the Society, as our present space is much too small. If sufficient money can be obtained, it is the intention to fit up the upper floor with a commodious dark-room, printing accommodations, a studio with skylight and other accessories, using the

first floor—but one flight of stairs from the street—as a meeting room, also for library and committee rooms.

It will be noticed that the location is as central as our present place; that no elevator will be necessary; and, being close to Broadway, the rooms will be very accessible.

These advantages will undoubtedly tend to attract more members to the rooms, thereby encouraging a greater social intercourse among them, a point which heretofore has been neglected.

It is well known that there is really no good place in the city where an amateur beginner can go to get instruction, and it will be the endeavor of the incoming Board to provide something of this kind. It is proposed in different ways to cater to the needs of amateurs, and, under proper regulation, to rent out instruments to beginners, and loan lanterns for private exhibitions, with slides.

The President: I have sent out a series of letters to the different manufacturers of dry plates, for the purpose of getting copies of their latest formulas, and it may interest you to know that one man out in Rockford, Ill., has taken the standard formula which the Society adopted last year, and advises his customers to use nothing else, saying that it gives the best possible gradations.

Mr. Carbutt has been kind enough to bring with him a round, illuminated, colored almanac, which some of you may have seen; and, in connection with this, has brought two prints, one made from a negative on an ordinary rapid plate, and another printed from a plate prepared specially to make it more sensitive to colors.

Mr. Carbutt is present, and will give us some information.

Mr. Carbutt: *Mr. President and Gentlemen:* My object is simply to illustrate what can be done by the use of the new orthochromatic plates to get harmonious results from a subject which has a large variety of colors and tints. This is, of course, a mere experiment. [Passing pictures round.] The centre, you will observe, has a dark ochre color. In one of the plates it is so dark that you cannot see the lettering. In the other the lettering is all distinct and legible. Again, on the right of the picture are daisies

with yellow centres. You will here see the difference between the orthochromatic and the other plate, which you will find is covered with little black dots. It is a plate which has just come into use, more commercially than generally, although I believe it can be made good use of, and be very useful in making pictures in the autumn, where browns and reds and greens and yellows appear; and I think by the use of these plates you can get finer gradation and more distinct leaves.

At present they do not possess any great rapidity. One is taken on my rapid plate, and one with a yellow color screen placed at the back of the lens, which reduces the exposure considerably, and has the effect of holding back the black tints.

The President: I am pleased to say that we have with us to-night a gentleman well known in England, who, as some of you are aware, is author of one of the best books on the magic lantern, a copy of which we have in the library. I will introduce to the Society, Mr. W. I. Chadwick, of the Manchester Photographic Society.

Mr. Chadwick: *Mr. President and Gentlemen*, I am very much pleased to be at your meeting to-night. I would have been much more pleased to have remained silent, and not have been called upon to talk, but I know that if a member of your society should be in Manchester, I would be the first to ask him to say something. I knew it was your annual meeting, and did not come prepared to say anything photographic. Photography opens a large world of subjects, and a large field for discussion. You know there are a great many branches, and to talk without a subject is rather difficult. At least so I thought until a short time ago, when a lady came to England from America, who said that she could talk a half hour on politics, and three-quarters of an hour on any subject that should be proposed. I thought that was very clever, and concluded that I would like to hear her; so I started out. On my way I met a friend, a married man, who, by the way, has a good many children. I said I would like him to hear her.

He asked me what subject she was going

to lecture on. I told him this was to be decided by the audience.

"Then," he said, "she has a subject?" I replied, "Yes, she has, after the audience has decided." Said he, "I see nothing difficult in that. Come home and I will show you a wife that can talk two hours without any subject." (Laughter.)

I have had some little experience in the direction of photography. Our photographic society is the second oldest in the world, but as I say, though I have had some little experience, I am never too proud to learn. There are one or two things here which strike me as being different from what they are on the other side. Now, for instance, you call the roll of your members, and mark whether they are absent or present.

The way we do it is this: We have a list of the members, and as they come in they mark their names on the list. I simply suggest that by this method the members could sign their own names, and thus save time.

There seems to be an impression here that our societies are great on having teas, and that the Englishman is very fond of his beer. There is no such thing as that about it. We like to encourage the amateurs at our meetings. They are sometimes quite timid about getting up and speaking—at least I know I am, especially where I am not very well known. We open at seven o'clock with a formal council meeting, which is quite as formal as anything you ever saw—sometimes too formal perhaps, at which the business affairs of the society are discussed. About 8 we all have tea, bread and butter, etc., and during this tea there are a great many amateurs who have good results in their pockets which they are too timid to bring up to the desk, but will show them to the next person at their side or across the table, and can often give good information. Unless young members will bring forward their results and exhibit them, the whole responsibility of the meeting rests on the shoulders of a few of the older members. After the tea, at about 8.30, the general photographic meeting begins, lasting, perhaps, a little over an hour. Each of our members has the *British Journal*

of *Photography* furnished him by the Society. We thus have not only a report of our own proceedings, but your proceedings, and every one's proceedings, and we read these and are prepared to say something at our next meeting.

The lantern, of course, is an important thing with us. We have found it convenient to extend our meetings to two meetings in the month. That is, one photographic and the other a special lantern meeting.

These are public meetings, and everyone can bring his wife or his sister or his sweetheart, and I think we have an average attendance at these meetings of from five to six hundred.

Mr. Beach: What is the general custom concerning the use of gas for the lantern; is it used compressed in cylinders?

Mr. Chadwick: We don't use compressed gas, because it does not pay anyone to make it.

The theatres are all provided with large gas-holders, and amateurs usually get the gas there. There is one place in London where it can be got, but Manchester is far from London. Manchester is about the centre of England, and although only about two or three hours' run to London, yet it is difficult to get the gas as you want it.

A very nice arrangement I saw since I came to this side was in Montreal, where a friend of mine fills his own bottles, and, instead of two hundred pounds pressure, has about sixty.

He has a large cylinder about two feet six inches in diameter, which holds about six or seven cubic feet of gas. He fills this with oxygen gas, and connects it with the bottle he is going to use from. Then he admits water, under a pressure of sixty pounds to the square inch, to the bottom of the gas-holder, and as it fills the same the gas is forced out into the bottle. By turning a faucet the gas forced into the bottle is retained. The water is then let out of the gas-holder, the latter is again charged with oxygen, and the operation of letting in the water repeated. He finally succeeds in getting about four atmospheres, or about sixty pounds pressure. He readily fills them in his own house, which is something I have

never seen before. The water-pressure is that derived from the ordinary street main.

Your lanterns and cameras are quite different from ours, and I dare say they are better than ours. This is like saying, though, Chinese is better than Japanese. I don't understand yours as well as ours, of course. Yours are very nice to look at, but I believe ours to be the most practicable. In principle they are the same. Some exhibitions I have seen here are very good; and as regards lantern slides, I have seen some very good ones and some very bad ones.

Mr. Beach: Do they use dry-plate slides mostly in England?

Mr. Chadwick: They use dry plates for making lantern slides because it is easy, but the results produced by gelatine dry plates are, as a rule, not so good, and I think it is easy enough to reason it out. I have made a great many, and always go into the easiest. The usual wet plate is exposed and developed and redeveloped at the same time; but if the collodion dry plate is used, you can develop afterward, so I prefer this method for making transparencies.

With the gelatine plate we cannot get good transparencies from a weak negative. A gentleman here says that he can, but I cannot do it. I can by other methods, but not by gelatine.

The dry collodion process is, I think, easy, and has produced results that I have never seen excelled. Most amateurs should, in my opinion, use this.

I might say something about prize presentation pictures. We found that there was some jealousy among the members who sent their pictures for selection, when special judges were appointed to make the awards. This was the point: Some pictures were selected, and somebody else thought that his picture was just as good. So the plan we adopted was to number each picture very plainly, and allow each member to cast a vote for the number which he preferred. The picture receiving the highest number of votes took the prize and was called the prize picture. By this plan everybody is satisfied, since each member has a chance of expressing his opinion.

Thanking you very much for having

listened to me, I hope what I have said has been of some interest to you.

Mr. Beach: Mr. Chadwick's suggestions are well worthy of our future consideration, and I was pleased to have him here to-night.

The meeting then adjourned.

NEW ENGLAND PHOTOGRAPHERS' ASSOCIATION.—The last regular meeting before the summer vacation was held at the studio of J. W. Black & Co., on Monday evening, May 3, at 7.30 P. M.

Mr. D. T. Burrill gave a demonstration of the painting of a background, and the members exhibited a number of novelties which were positively discussed.

ARTHUR A. GLINES,
Secretary.

KINDLY WORDS FOR A WORTHY COLLEAGUE.

We congratulate our young co-worker, Mr. W. I. Lincoln Adams, upon what follows, and add our second to it. We have personally known him from a child, and he is like an American Optical Company's camera—*good all through*—back to front.

"Young journalists are now turning their attention to special subjects at the outset of their careers, and this is a step which cannot be too highly commended as tending to their own success and the elevation of the profession. One of the youngest editors in New York is W. I. Lincoln Adams, who conducts the *Photographic Times*. Mr. Adams is just of age, but he graduated at the Montclair High School in the Class of '83, distinguishing himself specially in the branches of rhetoric, optics, and physics, for which he evinced a marked aptitude. After leaving school he made a close technical study of photographic chemistry, optics, and the power and action of light, actinism being an almost unknown quantity in the estimation of the ordinary photographer of the factors which produce his results. For some time he worked under the immediate supervision of J. Traill Taylor, now editor of the *British Journal of Photography*, and formerly editor of the *Times*. Mr. Adams is thoroughly well equipped for his work, and writes lucidly and intelligently upon the topics with which his journal deals."—*The Journalist*.

PERTAINING TO THE



MORE prizes to be awarded at the St. Louis Convention P. A. of A., June 22 to 25, 1886. To make our convention still more interesting the undersigned offers \$500 cash in five prizes of \$100 each for the best five exhibits of photographs of any kind and size from negatives on "Cramer Plates." Awards to be made and paid during the Convention. Parties wishing to compete will please notify

G. CRAMER DRY PLATE WORKS.
St. Louis, Mo.

TO THE FRATERNITY.

I have had several parties complain to me that the decision which has been published "*that every exhibitor has to attend to the hanging of his own pictures*," would prevent many, who cannot attend the convention personally, from sending exhibits. I, therefore, deem it advisable to let the fraternity know that if informed so, I will display all such exhibits to the best of my ability.

Yours very fraternally,

R. BENECKE.

Local Secretary, P. A. of A.

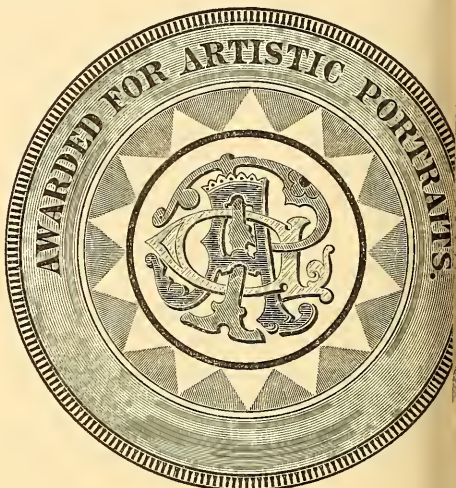
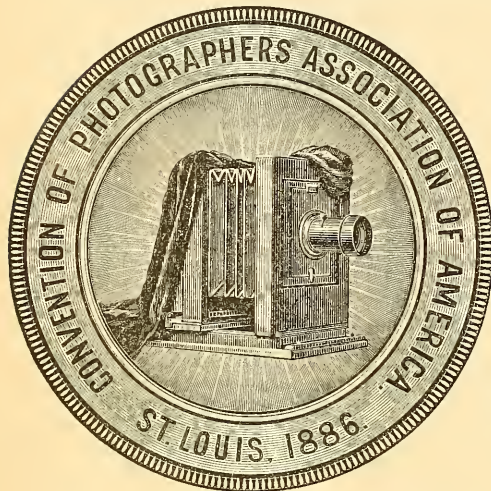
St. Louis, Mo., April 23, 1886.

TO PRIZE COMPETITORS: At no other Photographic Conventions have the encouragements for a fine display of photographic work been of such a vast nature as the approaching one. It is yet time for photographers who have not begun, to make ready and enter into competition for a medal. It is not expected your exhibit should be a large and costly one, for a dozen or two well-selected subjects and perfect prints will do just as well. Count well the

advantages you may derive should your exhibit be awarded a prize? What chances to advertise and increase your business! I know from experience that it will pay a hundred times for the outlay. Look at the illustrations showing designs. The size is to

CORRESPONDENCE.

DEAR SIR: Will you please forward me THE PHILADELPHIA PHOTOGRAPHER for this year, including, if possible, the back numbers from January 2, 1886. I enclose



be two and a half inches in diameter, the camera in centre raised in bass-relievo, in shades of gold, drapery on camera in red and satin finish, the lettering will be done in enamel.

The monogram will also be raised lettering for those that will be awarded for portraits, enamelled and monogram in different colors of gold; on this side of the medal space is left open to engrave the lucky man's name.

The silver medals will be of the same design and size, but in order to enhance their value I have thought best to make the camera and monograms in gold same as on the gold medals; this will also increase their beauty. They will be put up in morocco cases, satin-lined.

Who will be the Knight of the Camera that will take home these beautiful souvenirs?

JOSHUA SMITH,
Committee on Medals.

CHICAGO, April 27, 1886.

If you have not Wilson's *Photographics*, it may help you win a medal if you read it now.

with this a post office order for one guinea which is about equal to five dollars U. S. currency. I have to ask you if, through the medium of your question box, you can put me in communication with any amateur photographers who may be open to exchange prints of landscape, seascape, or architectural views. I should be very glad to exchange views in any size up to 15 x 12 either in silver, carbon, or platinum. I recently saw a set of most interesting American and Canadian views sent out by an American amateur, and it then occurred to me that perhaps I could manage to make exchanges. I have a large collection of negatives of ruined abbeys and castles, Scotch scenery, etc., the result of about ten years' pursuit of the art. If you can do anything in this matter, you will confer a favor upon,

Yours very truly,
HAROLD SANDS.

NOTTINGHAM, ENG.

[No doubt Mr. Sands will have abundant responses.—ED P. P.]

DEAR SIR: Your paper (PHILADELPHIA PHOTOGRAPHER) of 6th inst. just to hand, and I must say I look forward to it with

great pleasure as I like to know how our brother amateurs get along in America, and always find a lot of news in it. I must compliment you on your illustrations, they are always so good and printed just right. The last is very good (The Bride), the best I have seen, except one in a previous number (Mother Shipton, I think it was called) I see one question in your paper from C. H. Townsend. "If not answered before," the reason is overexposure, for if you expose a plate ten times too long or rather ten times overexposed, you get a negative from a negative, but I fancy that is stale news to you, as it has been carried on over here as a trade.

We are getting along well as our new club (Camera Club) and our Thursday evenings are quite a success. My new electric light has also been quite a success; I have used it all this winter; it gives a light nearly equal to lime light. The battery has 24 cells and holds 9 ounces of liquid in each cell, it burns a 20 volt. incandescence lamp for 4 hours and gives a 75 candle-power light. I then use same liquid for my dark-room lamp, but here I use an 8 volt. lamp and in this it burns for 6 or 7 hours, and as the liquid used in my battery fills my dark room lamp three times I get plenty out of it. We have not got much in the way of new things over here. My brother, in Liverpool, has invented a new hat camera in which he uses Eastman paper, and the camera and paper together only weigh about ten ounces. I fancy nearly every one here has followed America this year as the developer used by nearly all amateurs is the one introduced by Mr. Beach, of New York, and the Eastman Company's films and bromide paper have taken the photographic world by storm. In fact, the new Eastman bromide paper is about the best thing we have had this season.

As for the rest, we go on about as usual and every day or so have a new drop shutter out, but are far from being perfect in shutters yet. The good time for that has yet to come. Now that the fine weather is about, I hope to be able to get some work done. Excuse this long letter and with best wishes I remain,

Yours truly, A. DRESSER.

SPRINGFIELD, BEXLEY HEATH, KENT, April 16, 1886.

A GOOD MOVE.

The following letter is self-explanatory:

PHILADELPHIA, April 14, 1886.

"GENTLEMEN: If we will close our store at 5 o'clock during the week, and 1 o'clock on Saturday, from May 1 to Sept. 19, '86, will you join us? If so, please subscribe.

Yours truly,

BUCHANAN, SMEDLEY & BROMLEY."

The above letter was presented to the following firms for their consideration: Wilson, Hood & Co., J. P. Cheyney, John Haworth, Thos. H. McCollin, and Jas. F. Magee & Co. It was signed by all, and all now adopt the early closing system. Next!

Yours truly,

BUCHANAN, SMEDLEY & BROMLEY.

A NEW METHOD OF "STORING" PAPER NEGATIVES, FILMS, AND PHOTOGRAPHIC PRINTS.

MR. FRANK G. DUBOIS, of this city, an amateur photographer, has, unwittingly, supplied the craft with an article that will prove most convenient and useful. We say unwittingly, because Mr. Dubois's invention, at first, was intended for filing away letters, invoices, and other business papers.

A box 7 x 9½ x 16 nicely finished, strong and well-made, contains an alphabetical index. Each letter can be subdivided to allow the filing of papers of one party or class, separate and apart from others. Papers can be removed for reference and replaced in their original position by means of a device for that purpose. The boxes are calculated to hold 2500 letters, documents, or invoices, which would be sufficient for the business of the majority of houses for one year, when the box may be labelled as to its contents and set aside, yet always being ready for immediate reference as stated above.

The papers are kept free from dust, because the box is covered. They can be referred to at the end of ten years with as little delay as on the date of filing.

No binding of papers is required.

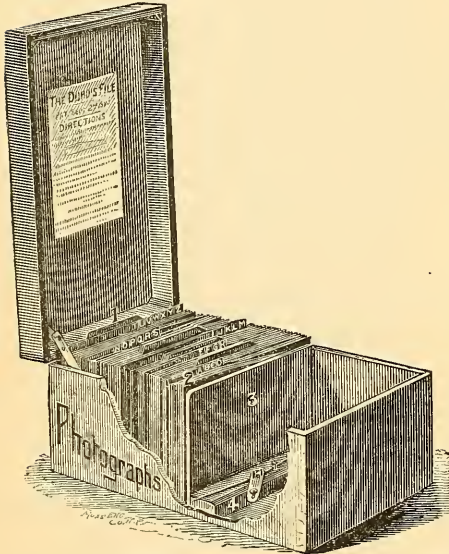
After reference they can be replaced in

their position without interference or the disarrangement of other papers.

Being subdivided, one set of papers can be kept separate and apart from others.

After once placing the papers under their respective letters they cannot by any ordinary means slide out of position or become mixed with those of another letter. They are locked into place by a double lever.

Now the application of the invention to



the uses named at the head of these remarks, will be seen plainly and at once by reference to the drawing. Instead of papers, letters, or invoices, insert paper and film negatives and photographs, and you are blessed with the neatest way of storing the former, and the shopkeeper is supplied the best means of keeping "scraps," for which there is now such a demand, unmounted.

No more curling of corners or folding over until the print is ruined. Moreover, on account of the alphabetical arrangement, the quickest, easiest way of finding a print paper or film is thus supplied.

A few directions will make it plainer.

To File.—1st. Drop the article to be filed directly in front of and next to the plate containing the letter with which the name or title begins.

2d. To keep one set separate and apart

from others, use one of the loose slips (2), writing the name thereon, thus:

Insert the paper slip in front of the article with which the name begins.

Du Bois, F. G.

To Remove any Article for Sale or Use.—Find the one to be removed, but before removing it, insert one of the small oblong slips (1) directly behind the paper, allowing it there to remain until such time as the article removed is returned, such inserted slip retaining the exact position of the article.

To Change Position of the Follower (3)—1st. Release the points of the wires from the sides of box by moving the lever to the right.

2d. Move the follower (3) into position at such a point, as to allow of easily inserting the articles to be filed.

3d. Push the lever (4) to the left, forcing the points of the wires into the sides of the box, thus securing the follower (3) at any point.

We believe those who need it will see its advantages at once.

PRACTICAL POINTS FROM THE STUDIOS.

COLLODIO-GELATINO DRY PLATES.—It might be possible, under certain circumstances, to combine the old collodion process with the new gelatine process. It would suffice to treat a plate prepared with collodion, on coming from the silver bath, with an accelerator consisting of a rapid gelatine emulsion. The plate is collodionized and plunged in the silver bath as usual, then carefully washed so as to remove the excess of silver. The drained surface is covered with a gelatine emulsion made as usual, taking, however, all necessary precautions for the emulsion to be used for coating the plates without collodion, and to obtain the greatest possible sensitiveness. The sensitive collodion acts as a substratum, and prevents the detaching of the film and frilling. These plates will be less rapid than those made with gelatine, but more rapid than those made with collodion, and are superior

to them for enlargements and reproductions. Their most useful application will be in making enlargements on opal glass, as they will give all the desired degrees and qualities with the pyro-development, which acts as well as with the gelatine plates.—*Paris Moniteur*.

GELATINO-CHLORIDE PROCESS FOR AMATEURS.—Mr. Dalmer recently read a paper before the Manchester Society of Amateurs, in which he treats of the advantages and facilities of the gelatino-chloride process in the hands of amateur photographers. The plates are much less sensitive than those made with gelatino-bromide emulsion; there is no necessity for boiling the chloride of silver emulsion, and the plates are not so easily affected by the artificial light of the dark room. In diffused daylight these plates require an exposure of about two seconds in order to give fine negatives with the ordinary development.

PYROGALLIC ACID IN EMULSION; NEW EXPERIMENTS.—The question of introducing a certain quantity of pyrogalllic acid in the gelatino-bromide emulsion, which we mentioned not very long ago, has come up again.

Dr. Sinclair, of Nova Scotia, publishes a letter which shows that the experiment was made also in Canada and New York, with some success. In these cases a certain quantity of an *alcoholic solution* of pyrogalllic acid was added to the emulsion before coating the plates. These plates are exposed in the ordinary way, and give excellent negatives, it is said, when developed by means of a simple alkaline solution. An important question is to ascertain if plates thus treated can be kept for a long time without injury. However that may be, Mr. Sinclair having dissolved an ounce of Burton's rapid emulsion, added to it one and a half grains of pyrogalllic acid dissolved in about a fluidrachm of *hot water*, and mixed well the whole. The plates having been coated and dried as usual, were exposed and developed with an ammoniacal solution. After fixing, the negative has a slight yellowish tint, which remained after the alum bath. At present, the author having prepared some plates in the same

manner, has put them aside to ascertain if they may be kept some time without spoiling.

A WATERPROOF VARNISH.—The photographer is obliged to use a great deal of water, nevertheless sometimes it plays him some ugly tricks, warps his appliances, and often renders them useless. Here is a recipe that will make them completely waterproof:

Melt one part of copal in six parts of acetone (or pyro-acetic spirit), in a well-stoppered bottle. This solution is slowly made, and requires several days. Decant, and to the clear portion add four parts of collodion. Let it rest for a short time for the varnish to clear. You will find this varnish very useful for many purposes when making outdoor work.—*L'Amateur Photographe*.

MANAGING AN OVERDEVELOPED PLATE.

I FIND in your number for February 6, 1886, an account of the negative of Mr. F. Waltenberg, and of his asking the members of the Provincial Association if a negative that has been so badly overdeveloped as his has, could be reduced. I do not know that the one I will describe was as far gone as his or not, but will describe my method with it, which is as follows:

Having been asked to photograph a brick-yard in this city, I packed my 5 x 8 camera, and, taking the cars, arrived there about 10 o'clock, A. M. After notifying the men what I was about to do, I took the cap off the lens and gave an exposure of about one second, after which I returned home and proceeded to develop.

Now, I acknowledge myself guilty of an act no photographer should confess: having "too many irons in the fire at once."

After pouring the developer on my plate, I had the satisfaction of seeing what would have been a very nice negative come up. But just at this time I was urgently called away and compelled to remain a couple of hours. On returning to my dark-room, I found the plate in my dish so intense I could not see through it. After fixing about three hours I set it aside as "no good," and left it

about a week. One cloudy day, rummaging for a negative which had been misplaced, I ran across this plate—I cannot say negative. Thinking I would experiment a little, I put it in the washing tray and let soak a short while, after which I put it in the citric acid bath, which seemed to have not the least effect on it. Remembering the way in which I had reduced a number of negatives, I thought it would probably work on this, but was not prepared for the result which followed.

I prepared my chemicals as follows: Make a saturated solution of iodine in alcohol (98 per cent.), and a saturated solution of cyanide of potassium in water, I proceeded to flow my negative with pure alcohol, after all the greasy lines had disappeared from the film. I then applied the saturated solution of iodine to the plate, and distributed it evenly but quickly over the surface with a tuft of cotton.

I then immediately flowed the cyanide (weakened about one-half with water) off and on, until it dissolved the precipitate formed by the iodine, which is of a whitish-green tint (I believe it is iodide of silver). And, presto! changed from absolute darkness; there appeared an image in full detail, everything is as clear as can be, such as a sand-box to the right of the principal figure, with the grain of the wood, and every row of brick, from the immediate foreground to the walls of a house in the distance.

After again applying the iodine and cyanide, I washed it thoroughly (the film must be washed under the tap, and rubbed until the greasy effect of the alcohol is done away with, and had a nice, brilliant printing negative; of course, a trifle slower than if rightly timed and developed.

Hoping this will do some good if you see fit to publish the formula, or send Mr. A. Waltenberg a notice of it, I remain,

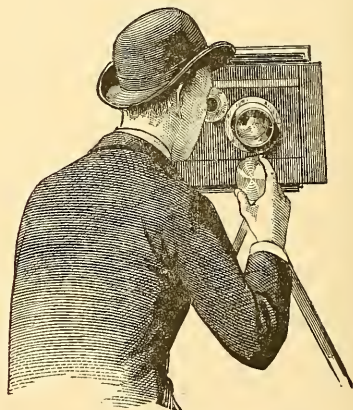
Sincerely yours,

DENSITY.

N. B.—Some time soon I will write of my mode of procedure with the reduction of the shadows in overtimed plates, of the high lights in undertimed ones, when developed too strong, and of plates when timed rightly, but developed too far, as above. D.

SHARPLY.

WHAT would the busy members of the craft do if there were not some inventive geniuses among us who devoted themselves to the consideration of things which make our labor easier and more comfortable? To Messrs. Sweet, Wallach & Co., 229-231 State St., Chicago, we are indebted for a little article that is destined to become immensely popular. They say "no focussing cloth required—no ground glass required." It will be understood why, after one careful examination of the drawing herewith. A little optical instrument is attached to the front of the camera by means of which the image to be photographed is projected upon a white card inside the camera-box.



It is an ingenious contrivance and will not only enable one to work more sharply, but it will also prevent many a perturbed heart and save the apparatus many a tumble.

Moreover, children need no longer be frightened by the hideous appearance of the man underneath the black cloth, or by his dishevelled hair. How it was ever discovered is more than we can tell. You will adopt it in practice, of course, and must not forget to cap it after focussing, previous to exposure. The inventor is Mr. Collins.

The technical name of the invention is Collins's Focussing Attachment. Send to Sweet, Wallach & Co., for a circular, and see the advertisement.

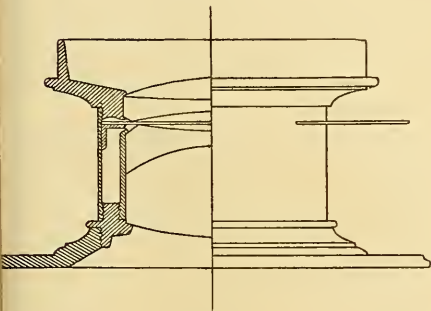
STEINHEIL LENSES.

THE multitude of lenses now offered by various manufacturers makes it difficult for the would-be purchaser to choose, and an impossibility for the editor of a photographic magazine to "advise a choice."

A convincing evidence of this is given in a letter in "Queries" this month.

We *cannot*—more—we *will* not advise on this subject. It is beyond us—we *do not know* which lens to purchase. Do as the African king told Du Chaillu, the explorer, to do, when he couldn't choose a wife from his sixty-three daughters, "*take them all!*"

FIG. 1.



In answer to many queries, however, we will endeavor briefly to explain the difference between the various series of Steinheil lenses, and their adaptabilities.

Those most used in photography belong to Series II., III., and VI. Series II. belongs to the Antiplanetic group, and is for portraits in a good light, groups, architecture, landscapes, etc. It has great depth and large field, with equal definition and illumination. The Antiplanets are an improvement over the Aplanats, and possess all the advantages which can be fairly expected in a good objective—simultaneously—and therefore render them suitable for the various uses in the open air and in the studio. They consist of two cemented pairs placed so closely together that there is only just room for the diaphragm. See Fig. 1.

Series No. III., belongs to the Aplanatic

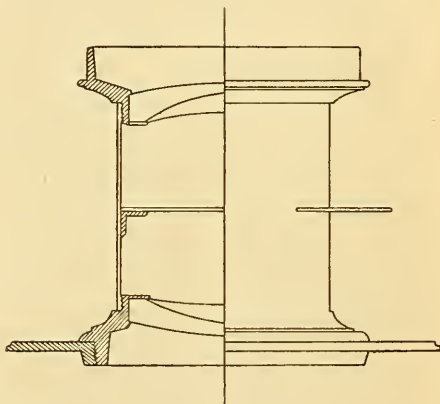
family, and is already well and favorably known for the good pictures they give, and their adaptability for either architecture, landscape, or even for group work in the open air.

The aperture to focus is as 1 : 7, angle about 60°.

The optical construction is made plain by the drawing. Fig. 2.

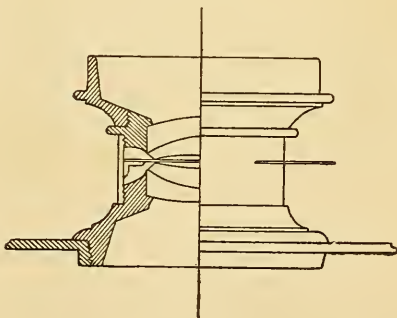
Series VI. supplies the best possible copying lens with fine rapidity. These lenses give perfect flatness of picture and sharpness of definition, and have, at the same time, a considerable field. These qualities

FIG. 2.



render them suitable for copying maps, charts, pictures, engravings, etc. Fig. 3.

FIG. 3.



The lenses of this series are rapidly gaining favor with the electro-engraving establishments of the United States, whose ope-

rators pronounce them superior to all others.

This much for the *uses* to which these lenses are adapted.

If our readers desire to go more into their scientific construction, Dr. Vogel, in his *Progress in Photography*, devotes pages 99 to 104, to them, illustrating his theme by means of many engravings.

The Steinheil lenses have been known by their excellences, many long years in America.

OUR PICTURE.

WE are at last enabled to relieve the patience of our readers by presenting the promised print from Mr. John E. Dumont's famous prize negative, "Listening to the Birds."

Mr. Dumont's home is in Rochester, New York. The negative in question belongs to his last year's ingathering, and first attracted public attention at the exhibition of the Amateur Society in New York, where a prize was awarded for the beautiful print exhibited there from it. It was also exhibited at the Boston Exhibition, where it would have received a similar recognition but for the peculiar rules of the Committee.

At the Philadelphia Exhibition it secured a diploma, and in London, in March last, it secured a bronze medal at the "Home Portraiture Competition of the *Amateur Photographer*."

It is one of those rare, rich camera catches, which touches the public sentiment, besides being technically excellent, and has, therefore, fairly won the fame which has been accorded it. The history of the picture is quite interesting, and we give it in Mr. Dumont's own words, which came in response to our request. In his letter, Mr. Dumont says:

I do not know that I can say much about "Listening to the Birds."

I made this picture quite unexpectedly one day late in October of last year, when out in the "Dugway" after my "Village Smithy" for the Philadelphia Exhibition. My smithy I found, but no one to act as a smith, so while waiting for some one to show up who would pose as such, I wan-

dered up a lane and, as I came to a sharp turn, I saw at once that with one or more figures I had an opportunity, so back I went to the first farmhouse and asked the old lady if she had any children. She answered, "yes," and I told her to send them out. Out tramped eight, with dirty faces, ragged clothes, and hair bleached by the sun until almost white. I took them back and arranged them in a way that pleased me very much. I exposed one plate when one of the boys climbed upon the fence, and cried, "Oh! look at the crow." That settled it, I then posed them as you see them and, after quite an argument and some severe threats, I managed to get them all to look up. The first plate was doomed to destruction by falling out of my carriage and being broken into a thousand pieces, while the "Listening to the Birds," which was in the same shield, escaped, as by a miracle, to bring me fame and prizes both on this and the other side of the Atlantic.

The exposure was on a Cramer lightning-plate, nineteen and one-half inch focus Dallmeyer R. R. lens. The light was very weak, and I would rather have given a longer exposure but did not dare risk the children keeping still."

Surely we are fortunate in securing such a prize for our embellishment. Doubtless it brings back the recollections of happy days to many both of our female and male readers—of the days when, salt in hand, you not only *listened* "to the birds," but tried to catch them as well, by the good old-fashioned way of putting salt upon their tails.

"Hear it—hark! among the bushes,
Laughing at your idle lures!
Boy, the self-same feeling gushes
Through my heart and yours.
Baffled sportsman, childish mentor,
How have I been—hapless fault!—
Lad, like you, my hopes to centre
On a grain of salt."

Blanchard.

The prints give us another example of the gelatine work of the Photogravure Co., 853 Broadway, New York. This excellent means of reproduction enables us to give our readers such gems as "Listening to the

Birds," which it would be impossible to give otherwise.

The color chosen is admirable and the printing unusually uniform. Since, to our surprise, there seems to be a good deal of ignorance as to the various reproductive processes of this useful company, we shall presently provide a paper upon the subject with the hope of making the matter clearer *pro bono publico*.

THE WORLD'S PHOTOGRAPHY FOCUSSED.

TELEGRAPHING A PICTURE.—An ingenious system of adapting the alphabetical messages of the electric telegraph, or of the heliograph, or any other signaling apparatus, to the reproduction at distant points of some kinds of drawings, has been contrived by Mr. Alexander Glenn, lieutenant of the Inns of Court (Fourteenth Middlesex) Rifle Volunteers. It seems likely to be of much utility in military operations, as it is especially suitable for the transmission of small maps or plans of a locality, and for indicating the position of troops, batteries, and points of attack and defence. The method consists of either drawing the design to be transmitted on ruled paper, divided into little squares by vertical and horizontal lines, or laying a transparent paper, tracing cloth, or other transparent sheet, which must be so divided by lines into squares, over the drawing; the squares in each compartment are denoted, respectively, by pairs of letters, the alphabet running down the outer side for the horizontal rows of squares and along the top for the squares in vertical series.

A corresponding paper, which may be of a different scale if convenient, is kept at the receiving station. The operator at the transmitting station can thus indicate by alphabetical letters to the receiving station any point on the paper falling in the centre of any of the squares. The person at the receiving station will apply his pencil to that point, and will then be directed to the next point, drawing a line with the pencil, and so on to form a complete outline drawing.

Patches of shading of the several darker or lighter tints shown in a separate diagram

may be put in by special directions, and by these means a landscape or a portrait is telegraphed with very tolerable fidelity, though scarcely with fine artistic effect. The fancy portrait of a burglar, to be pursued by the "hue and cry" of the police, might perhaps assist in the recognition and arrest of the criminal. It was shown to Sir Edmund Henderson, at Scotland Yard, but we do not know whether the detective department has resolved to adopt the process. We have compared the original pencil and sepia drawing of the other portrait with the copy made in red chalk, from the signals transmitted to him by a person who had not seen the original, and we are quite satisfied with the correctness of the copy.—*London Daily*.

THE San Francisco papers showed a high appreciation of the late exhibition of the Amateur Society, and said some very nice things about it. One of them said:

"The amateurs work strictly for the love of their art—they will be excused for calling it an art by those who see the exhibition. Their first rule is that no member shall ever make a photograph for pay. It is because they are working for the love of photography that they have done so much and such good work. It would not pay a professional to devote a day and several dollars' car fare to travel far out into the country, and get only one view of some peculiarly fine or intricate lacework of shrubbery. But for such a 'take,' or to secure such a prize as a moss-grown water-wheel, a relic of an old mining camp, a milking scene of unusual interest, a peculiar cloud effect on some distant mountain, the action of a new yacht, or what not, the enthusiastic amateur counts it a privilege to devote his holidays and spend his money. Then in the finishing and mounting, the amateurs devote an extent of time and work which would bring no profit to the professional."

PHOTOGRAPHIC SOCIETY OF IRELAND.—The third of the series of "Lectures" was delivered by Greenwood Pim on "Exposure and Development." The lecturer first dwelt on the subject of exposure, and said that, in order to get the best result, the exposure must be exactly right, and, to this

end, it was advisable that everyone should know the value of the various stops of his lens, in terms of the focal length. He also advocated the use of Mr. Burton's table of comparative exposures, which, he said, he found very useful. He then went on to speak of development, and developed four plates which had received varying exposures, so as to show the result of over- and under-exposure, and the method of saving a plate when it was either over- or under-exposed.

CARDIFF AMATEUR PHOTOGRAPHIC SOCIETY.—The President gave an interesting discourse on Photography generally.

A discussion ensued as to the definition of an amateur. A candidate for membership wished to know, as the Society was comprised of amateurs only, if he was debarred from joining it by reason of accepting some slight remuneration from friends for occasional work he might perform. It was the unanimous opinion of the meeting that the candidate was eligible for election. The worthy president understood a professional photographer to be a gentleman who catered for the general public, an opinion fully endorsed by the other members present.

CAMERA CLUB.—At the meeting held at the Club House, on the 11th inst., a paper was read by P. H. Emerson, on the subject of "Photography as a Fine Art."

The gathering of members and visitors was large, and during the evening included D. Harbord, G. C. Haite, W. K. Burton, J. Gale, J. H. Stone, J. Traill Taylor, S. B. Webber, etc. During the progress of the lecture, photographs illustrative of prints made were passed round.

Transparencies prepared from Mr. Emerson's negatives were then passed through the lantern, serving as interesting illustrations of the lecture, and as a useful lesson in artistic composition.

ON FOCUSsing. A HINT FOR PHOTOGRAPHERS FROM AN OLD PHOTOGRAPHER.—The season for landscape photography being now at hand, I hope the following hint may prove acceptable to those photographers who do not already possess the information. Having commenced photography with Fox Talbot's paper process, the daguerrotype

early in the year 1839, and since that time worked at most of the successful wet and dry processes which have been published, until within a period of about twelve years, when I was obliged to abandon a favorite hobby from failing vision, it may be admitted that I have some claim to the title of "An Old Photographer." Now for the promised information. When photographic lenses were constructed, having their visual and actinic foci coincident, I became dissatisfied with the interference to sharp definition produced by the roughened surface of the focussing glass plate, however smoothly it might be ground to remedy this evil. It occurred to me to cement a very thin disk of microscopical glass, by means of Canada balsam, on to the centre of the rough surface of the focussing glass plate; the balsam filled up the pits on the rough surface, and when the thin disk was pressed flat against the surface of the plate a perfectly transparent spot was obtained. Before cementing the disk on, two black-lead pencil lines should be drawn on the rough surface of the focussing glass at right angles to each other. The point of intersection of these lines should be in the centre of the focussing plate. When the disk is cemented on, the pencil marks alone remain visible. The marks are to enable the photographer to adjust his focussing lens with precision on the inner surface of the focussing glass plate. I constructed several forms of focussing lenses; one was precisely similar to the erecting eye-piece of a telescope, another in the form of a Ramsden eye-piece, and one a miniature microscope body having a compound eye-piece and an achromatic object glass. All these focussing lenses had a projecting tube at the extremity, with a screw adjustment to enable the photographer to focus with precision on to the pencil marks when the projecting tube is pressed flat against the polished surface of the focussing glass plate. By the means I have indicated the photographer can obtain a beautifully clear image of the objects in front of his camera lens. When copying engravings or printed matter, I found it very useful to multiply these transparent spots on the focussing plate by placing one on each side margin and the top and bottom margin of

the intended copy shown on the focussing plate. The centre spot may be about five-eighths of an inch in diameter, and either square or round; the marginal spots may be oblong, say one inch long by half an inch in width, to allow the various sizes of the image of the picture on the glass plate to be visible through them. These enable the photographer to ascertain with certainty if the image on the focussing plate is as sharply defined at the margin as in the centre; if this is not the case, the defect may be due to the optical axis of the camera lens not being precisely at right angles to all parts of the surface of the engraving or printed matter, or it may be that he is not using a stop or diaphragm small enough to give a flat field of view; these points should be attended to before venturing to expose a plate in the camera. I have been thus prolix to prevent any misunderstanding. The microscopical glass is the thin glass used for covering microscope objects. I prefer this glass to be not more than $\frac{1}{100}$ th of an inch in thickness. There is less chance of the focussing lenses being lost during an excursion if they are made suitable for the waistcoat pocket.—J. B. DANEAR, in *Br. Jour.*

THE LONDON AND PROVINCIAL PHOTOGRAPHIC ASSOCIATION.—On Thursday evening, April 15, at the ordinary weekly meeting of the above Association, held at the Masons Hall Tavern, City, London, the chair was occupied by Mr. W. E. Debenham. There was a large attendance.

Mr. A. L. Henderson said that an objection had been made to the use of tinfoil for the separation of packed sensitive plates, on the ground that it was too expensive. He could buy it in the market at sixpence halfpenny per pound, if taken by the hundred-weight. The commercial article was really not tinfoil, but an alloy of tin and lead; still it answered the purpose just as well. For separating his plates at the edges he used pleated bits of tinfoil one inch long by half an inch wide, and one hundred and forty-four pieces of the size mentioned weighed just one ounce, or two thousand three hundred and four such pieces weighed one pound; this one pound, as he bent and used the pieces, was sufficient to separate sixty-four gross of quarter-plates. Turning to the

subject of the memoir by Mr. Herbert Starnes, the discussion of which had been adjourned to that evening, he (Mr. Henderson) had taken a five-grain solution of gelatine, and flooded one-third of a cabinet-sized sensitive plate therewith; then he exposed the whole plate, and afterward he flooded the other end of the plate to the extent of one-third with the gelatine; he then allowed the plate to rest all night to dry. Next day he soaked it in water for a minute and a half, then developed it, and over the whole plate there was little or no difference in the resulting image. He produced the plate, in order that they might see for themselves. In new experiments made to decide questions something unexpected and of value was commonly enough discovered. On the 1st of November, 1882, Mr. Danks, of Coventry, had been exposing plates in Wales, which frilled so much on development that he could do nothing with them, so he sent a few to him to see if he could save them. He tried every known plan, and failed utterly; the plates insisted upon frilling. Some of Mr. Danks's old plates chanced to be near at hand a few days ago, when he was trying the gelatine experiments, so over one end of the plates he poured some of the five-grain solution of gelatine, then allowed it to dry. On development the whole plate frilled except where it had been coated with gelatine as stated, and there the cure was perfect, as they could see; no chrome alum or foreign substance had been added to the solution of gelatine. He had the centrifugal machine for cleansing emulsion at work daily, and if any one wished to see its action he could do so by calling between ten and twelve.

Mr. Starnes made some additional statements about his speculations. He also said that if Mr. Henderson used a strong alkali like ammonia in his developer it might possibly have dissolved the gelatine, thereby destroying its protective power; he (Mr. Starnes) developed with carbonate of potash without any restrainer. When in preceding papers he had used the word "molecule" he meant an aggregation of particles, in accordance with Captain Abney's definition that a molecule was built up of an aggregation of primary molecules.

Editor's Table.

RETIRED FROM THE BUSINESS.—Mr. O. P. HAVENS, Savannah, Ga., has sold his photograph business to Mr. GEORGE GOEBEL, who has been with Mr. HAVENS for the past seven years, and to Mr. A. R. LAUNEY, successor to Mr. D. J. RYAN. Messrs. LAUNEY and GOEBEL have formed a copartnership and will carry on the business under the firm name of LAUNEY & GOEBEL. Both gentlemen are photographers of long experience and are first-class artists. Mr. HAVENS will retire from the business. He has followed it for thirteen years, and is well known throughout the South. He will remain in Savannah until after the Centennial, and will then go North for the summer. His successors will carry on the business at 141 & 143 Broughton Street, Mr. LAUNEY removing his present gallery from Congress Street to the house of the new firm.

A MAGNIFICENT OFFER.—Not content with the splendid contribution made by him at the close of the Buffalo Convention, as will be seen elsewhere, Mr. G. CRAMER has announced a second gift of \$500, to be divided into five equal prizes for the best exhibits at the coming Convention. No doubt with such an incentive there will be difficulty in making these awards.

OBITUARY.—Our New York Society of Amateurs has, by death, lost one of its most active and beloved members, Mr. GILBERT A. ROBERTSON. He died April 13th, of pneumonia. He was Chairman of the Committee on Membership, and by his talent, geniality, and wide-minded understanding worked himself up to a degree of popularity most enviable.

ANOTHER EVIDENCE OF PUBLIC INTEREST IN PHOTOGRAPHY.

NEW YORK, May 3, 1886.

MR. E. L. WILSON.

DEAR SIR: We have been offered a very favorable opportunity to repeat the article published

by you in the PHOTOGRAPHER last month, by a western party (not in your line), and he desires us to furnish him a set of electrotypes. Have you any objection to their being used in this way? Yours, etc., MOSS ENGRAVING CO.

Of course we gladly consented to this request, for the glory and honor of our art.

PICTURES RECEIVED.—From Messrs. ABELL & SOX, Portland, Oregon, some fine photographs of lovely children—one climbing up a ladder to catch a butterfly; another seated on an easel with a portfolio of sketches strapped to its shoulder. Nice conceptions well carried out. From Mr. H. BUTLER, Vermillion, Dakota, some excellent winter views—one of a train "going at eighteen miles an hour," and some portraits of a malformed colt, with only one eye, and that in the centre of the forehead. From Mr. WM. BARNHURST, Erie, Pa., a very prettily arranged mosaic of ten reductions from his own negatives. The selection includes marines, river scenes, ruins, landscapes, and snow scenes, and the group is well copied. It reflects great credit on the gentleman who produced it.

Mr. E. A. SIMMONS and lady, of Pittsfield, Mass., called upon us a few days ago and saw the "views from our office window."

THE prices of photographic goods are fluctuating on account of "labor troubles."

MESSRS. WILSON, HOOD & Co., 825 Arch Street, Philadelphia, announce "The Amateur Box of New Acme Water Colors," at the low price of \$1.00. It will come in very good with our paper on coloring, found on another page. "The Amateur Box" will be sent by mail on receipt of price.

THE SELF-CENTERING SLIDE CARRIER.—This is the latest form of slide carrier in the market.

It is simple in its construction and admirable in its application, being adaptable to the English and French slides. It insures the centering of each slide, and consequent perfect focus, without the frequent adjustment of the objective. The metal work is made of finely ground cast brass, set in a strong black walnut frame. It will never wear out, and is always in order, being without doubt the best carrier ever offered the public. It presents such a decided advantage over the other forms that exhibitors and those using lanterns should avail themselves of the opportunity of securing a pair at the low figure at which they are offered. The manufacturers are MESSRS. ROBERTS & FELLOWS, 1125 Chestnut Street, Philadelphia.

Isochromatic Photography with Chlorophyl is the title of an interesting work published by Mr. FREDERIC E. IVES, Philadelphia. It is, as the author states, a reprint of his principal publications in the PHILADELPHIA PHOTOGRAPHER and elsewhere, relating to the subject of correct color-tone photography, with some new explanatory notes, extracts, and a statement concerning a discussion about priority. It is embellished by four interesting pictures: 1, A highly colored chromo; 2, a copy of the chromo by the chlorophyl process; 3, a copy of the same by the eosine process; and 4, a copy by the ordinary process. Those who want the details of the subject in hand will find them, in this compact form, a great convenience.

The American Field and Sportsman's Journal for May 1st contains a very entertaining article, illustrated by ten engravings from photographs made with a detective camera. The pictures are of lassoing cattle, snubbing wild horses, street groups, etc., and the article describing how it is done is written by an adept and an enthusiast. The copy was sent us by Mr. G. A. DOUGLASS, Chicago, of whom the writer bought his outfit.

MR. C. D. IRWIN, of Chicago, who has been making a tour of the world, and whose capital letter while he was *en route* to Australia appeared in one of our early numbers this year, writes us from Cairo, Egypt, of his return thus far. He met our old bodyguard and his Bedouin companions at the Great Pyramid. He says, "I find you left a good name behind you, and I reaped the benefit by getting along finely with that noisy crowd of rascals." We hope to see him soon.

MR. I. PAXSON, the New York veteran enlargist, is making a series of "big things," from G. Cramer negatives for the St. Louis Convention. Some of his late prints are 52 x 88 inches.

A PAPER well worthy of study will appear in our next issue, by Mr. C. G. BUSCH, Claremont, N. H. His theories on color should be taken up by those talented and with leisure, and brought to a practical settlement. The prints which Mr. BUSCH sends us by the Obernetter and his own "blue" process, are exceedingly interesting, and most excellent for prints without silver salts. They are soft, rich, and full of detail, and from artistic negatives as well. The results are most pleasing where the solution has been brushed on and not floated. Perhaps one-half of our readers have an example of Mr. BUSCH's handiwork in their homes in the form of one of his beautiful kaleidoscopes, for he is sole manufacturer of the mammoth ones which are for sale everywhere. We have long had one, and now he has sent us a new one. It is a marvel. We shall have more to say about it when we have enjoyed its endless transformations more. Look for his coming paper.

THE St. Louis Convention approacheth. We have no facts to offer concerning it, other than have been announced officially. We believe matters are going on nicely towards complete arrangements for the pleasure and profit of those who are on hand at the time appointed.

MR. J. F. RYDER, Cleveland, Ohio, writes of the rapid progress of art in his city. Mr. RYDER is immensely popular in Cleveland, and in the hearts of the older members of our craft holds a first place. No one who was there will ever forget the first N. P. A. Cleveland Convention. It was a model, and "our host" has never been overreached. He was needed to give the P. A. of A. a start, and he is needed now to keep it going. We hope he will be in St. Louis next Convention.

AN HOUR WITH MR. EDWARD ANTHONY.—Such a privilege is only accorded a few during business hours, yet it was given to us a short time ago, and we shall not soon forget the pleasure of it. He came to our office, and together, close to the "window," we chatted over matters of the past, present, and future, and compared travel notes and planned, as we trust, for the good of the craft. Mr. ANTHONY was fixed in Georgia a good part of the winter, but

presently developed such an appetite that the cuisine of the hotel could not satiate him. He cleared home, then, with the positive assurance of renewed health, and a good many "detective" catches. He looks bright and vigorous, but proposes soon to lay in a further stock at the Thousand Islands. We showed him our Mt. Sinai pictures, and recommended a camel tour, but (he is a habitual punster) he thought it would be "too dry a process" for him. We wish him a happy summer.

MR. LULU FARINI, the distinguished gymnast, known to many as the graceful female "flying Lulu," who was shot from a cannon, etc., has just returned from a tour in the Kalahari Desert, South Africa. His camera was his constant companion, and judging from the excellent pictures which he showed us a few evenings ago, he planted his tripod in many a place where only a gymnast could hold on. His father, Mr. G. S. FARINI, has published an account of their tour illustrated by pictures of giraffe hunts, desert life, natural scenery, etc. Mr. FARINI will shortly open a studio in Bridgeport, Conn. His genial temperament will secure him abundant patronage. He said, "I have had *Wilson's Photographics* as my guide for over four years."

A SPLENDID method of mounting photographs has been patented by Mr. E. K. TOLCOTT, 216 Northampton Street, Boston. The results are unique. No frame is required when the picture is mounted by the Tolcott method. The print is made to adhere to a thick bevelled plate-glass, and is then backed and bound heavily by leather. A slot in the backing admits an inclined support when the picture is for the mantel, and it is also supplied with a ring for hanging. It is also suited for the easel. The picture treated in this way gives out all its richness and detail. The examples in our office attract all who see them. This is far in advance of the enamel process, for the surface is protected.

PHOTOGRAPHING A THEATRE AUDIENCE.—The managers of the Temple Theatre, Philadelphia, during the engagement there of Miss Louise Balfé, in her famous role of "Dagmar," issued circulars daily which read thus:

"To night the entire audience will be photographed and every purchaser of an orchestra or balcony seat will be presented with one, also one of Miss Balfé."

By invitation of Mr. Erlanger, we witnessed one of these photographic performances. At the close of the third act, the hanging electric lights were ignited; the curtain arose, and there, at

the back of the stage, centre, stood a tripod; an 8 x 10 Am. Opt. Co's camera, a Morrison lens, an 8 x 10 Eastman-Walker roller-holder and—a photographer. On the left of the stage was the time-taker, watch in hand, who announced to the audience again what was about to take place. "All ready now," he cried, when the cap was removed, and an exposure of a minute made. "Try another now," he said; "and will the gentleman from Mt. Holy please keep still—and the ladies will not show if they giggle." A second exposure was made, "Thanks," said the watch man; and then the curtain was dropped, and the special lights went out. The orchestra leader and the man with large teeth and a short upper lip will be out of focus, and so will the lady whose seat was across the aisle from ours, who fell into a convulsion of laughter. The young usher knew where to pose himself—he was *sharp*. It was an interesting sight and a solemn moment for us when we realized to what universal service our art is being called.

Back of the theatre was a large portable engine and a huge Brush dynamo for supplying electricity.

This machinery is to be carried with the troupe from place to place, and the photographing of Miss Balfé's audiences continued wherever she goes. We understand that the local photographer will be engaged to make the exposures and to distribute the prints. So our friends will—well, a word to the wise is sufficient. Mr. Erlanger will always provide the apparatus, film paper, etc.

It is a novel scheme, and we think many another such one could be worked up to profit while prices for ordinary work are so low. The prints are made by the Photogravure Co., 853 Broadway, New York.

AN ERROR CORRECTED.—It seems we were in error in a statement we made in our last issue, and we gladly correct it. The following will explain:

DEAR SIR: In your issue of 1st inst., under the head "a tremendous glass order," you remark, "heretofore dry-plate makers could not use the best English sheet glass, because it was too expensive, and therefore had to content themselves with Belgian and French." Permit me in reply to say that over two years ago I discontinued the use of the latter-named brands, and have since used exclusively the best English flattened glass, not considering it *too expensive* for my trade.

Yours respectfully,
J. CARBUTT.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

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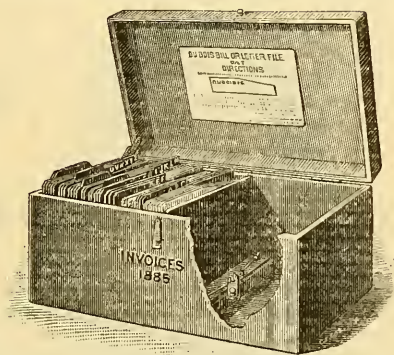
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IN THE

PHOTOGRAPHIC TIMES

FOR MAY

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By that experienced and accomplished photographer and photographic writer,

H. P. ROBINSON.

W. J. STILLMAN contributes *another valuable paper* to the May weeklies, and there will be articles from **Prof. H. D. GARRISON**; **Prof. H. W. VOGEL, Ph.D.**; **G. WATMOUGH WEBSTER, F.C.S.**; **HENRY M. PARKHURST**; **C. D. CHENEY, D.D.S.**, and from many others.

The popular series of papers on "**DRY-PLATE MAKING FOR AMATEURS**," by **DR. GEO. L. SINCLAIR**, of Halifax, will be continued in the May weeklies. All this will be given with the **EDITORIALS**, **SOCIETY NEWS**, **CORRESPONDENCE**, **NOTES AND QUERIES**, AND **COMMERCIAL INTELLIGENCE**.

RECAPITULATION FOR APRIL.

Dry-plate Making for Amateurs.....	By DR. GEO. L. SINCLAIR.
The Art In It.....	By W. J. STILLMAN.
Print Washing.....	By G. WATMOUGH WEBSTER, F.C.S.
The Use of Dry Pyro.....	By PROF. H. D. GARRISON.
The Photographer's Stone.....	By PROF. S. W. BURNHAM.
Photography in Germany.....	By PROF. H. W. VOGEL, Ph.D.
Researches on the Chemical Action of Light.....	By DR. J. M. EDER.
Requisites of Instantaneous Shutters.....	By HENRY L. TOLMAN.
Retouching.....	By LYDDELL SAWYER.
A Photographic Studio on Wheels (illustrated).....	By F. J. HAYNES.
Picture Making.....	By H. EDWARDS-FICKEN.
Bill Nye on the Photographic Habit (illustrated).	
Orthochromatic Photography.....	By E. BIERSTADT.
Old Landmarks.....	By F. A. JACKSON.
Æsthetics and Photography.....	By XANTHUS SMITH.
Lantern Transparencies, and the Method of Making Them.	
	By THOMAS H. MORTON, M.D.
Photography in Syria.....	By JOHN HENRY HAYES.
Photo-micrography (illustrated).	
General Notes.....	By the EDITORS.
Notes and Comments.....	By HYPO.
Notes and Queries.....	By the EDITORS.

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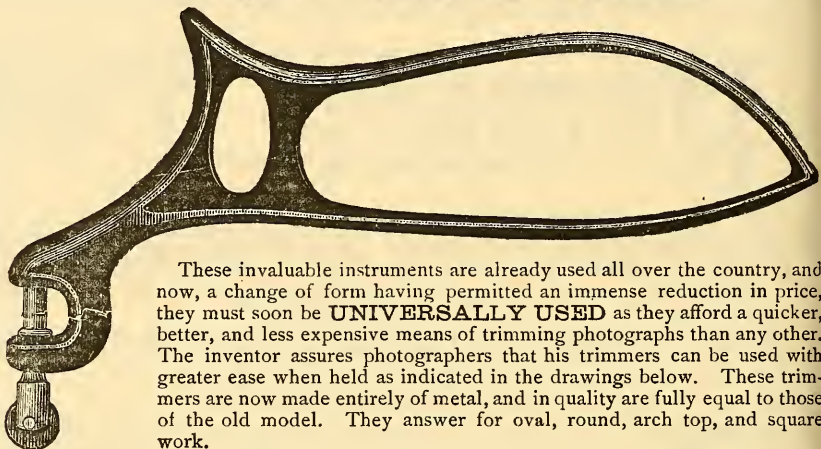
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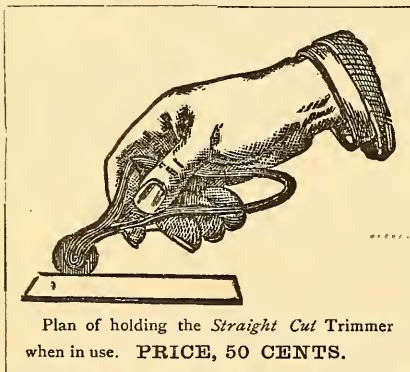
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NEW MODEL

PHOTOGRAPH TRIMMERS!

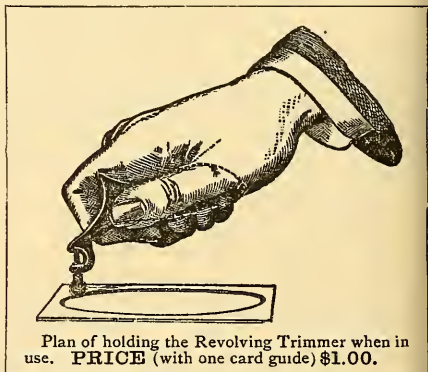
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2 $\frac{5}{8}$ x 3 $\frac{3}{4}$	3 $\frac{3}{4}$ x 5 $\frac{1}{4}$	5 $\frac{7}{8}$ x 7 $\frac{5}{8}$
2 $\frac{7}{8}$ x 3 $\frac{5}{8}$	4 x 5 $\frac{1}{2}$	5 $\frac{7}{8}$ x 7 $\frac{7}{8}$
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2 $\frac{1}{4}$ x 3 $\frac{1}{2}$	2 $\frac{5}{8}$ x 3 $\frac{7}{8}$	2 $\frac{3}{4}$ x 4 $\frac{5}{8}$	4 $\frac{1}{2}$ x 5 $\frac{1}{2}$
2 $\frac{1}{2}$ x 3 $\frac{3}{8}$	2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	3 $\frac{1}{2}$ x 5 $\frac{1}{4}$	3 $\frac{3}{8}$ x 6
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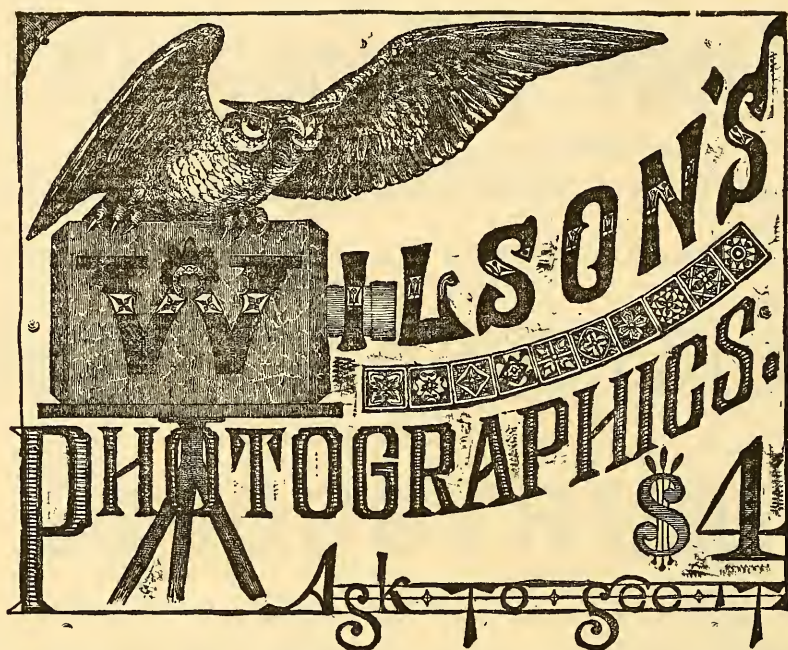
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 Prof. of Applied Chemistry in the School of Mines
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E. & H. T. Anthony & Co.
 591 BROADWAY
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THE BULLETIN FOR 1886.

That the BULLETIN has proved a success during the past year, our long list of unsolicited testimonials bears ample witness. And we have found it utterly impossible to publish all the good things that have been said of us, owing to the wealth of material always at hand to fill our pages. What is yet more encouraging to us is the large increase in our subscription lists, on which the number of names is now almost double what it was one year ago, and is increasing with every issue of the journal.

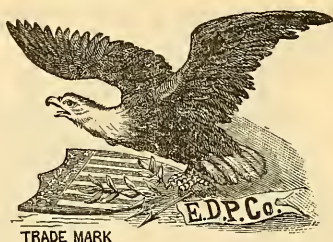
We recall with pride the names of some of the contributors to our pages: Prof. C. F. Chandler, Ph.D., Prof. Ogden N. Rood, Dr. A. H. Elliott, Ph.D., Prof. J. M. Eder, Ph.D., Henry J. Newton, E. L. Wilson, Ph.D., L. H. Laudy, Ph.D., Victor Schumann, Prof. Chas. F. Himes, Thos. Bolas, F.C.S., M. Carey Lea, Dr. R. W. Wilcox, F. C. Beach, Dr. John H. Janeway, Prof. Spencer Newberry, A. A. Campbell Swinton, Fred. E. Ives, T. C. Roche, E. K. Hough, G. H. Loomis, J. B. Gardner, W. E. Partridge, P. C. Duchocchois, J. F. Ryder, David Cooper, Abraham Bogardus, and a host of others. In addition to the contributions from the above gentlemen, we have given our readers clear and accurate reports of the photographic societies, in many cases from the stenographic notes of our own reporters. Our correspondence column has been a source of pleasure to our editors, and has become an important and unrivaled feature of our publication.

This is what we have done and shall continue to do, with this advantage, that the fund of material upon which we can draw in the future is still larger than that utilized in the past. Among other improvements we intend to illustrate every number of the BULLETIN with a specimen of the best work in both professional and amateur photography. Thus the subscribers will obtain in one year, two dozen gems of the photographic art. Various improvements in the literary part of the journal will also be made. In fact, nothing will be left undone to keep it in the front rank of American Photographic journals.

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TWENTY-THIRD YEAR, 1886.

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A large, elegant handwritten signature in dark ink, reading "G. Cramer." The signature is written in a cursive style with a long, sweeping underline.

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EXTRA.



CONVENTION MATTERS.

[The following was received, May 31, just as we were going to Press.]

THE Photographers' Association of America will soon convene, at St. Louis, with the assurance that it will be the most successful, interesting, and profitable reunion ever held. Every appliance pertaining to photography will be there. Most of the space allotted for photographic requisites is already taken, and the art rooms, which are admirably adapted to our wants, will be studios that will amaze many "Master Photographers." We believe it will be the grandest collection and exhibition of Heliographic art-work ever displayed by mortal hands; and, that to miss the St. Louis "Grand Prize Convention" will be a lifetime regret. Railroad, hotel, and all necessary accommodations will be reasonable and eminently satisfactory for all who may attend.

Address Local Secretary, R. Benecke, for local information; C. Gentile, Chicago, on railroads, and your dues to Treasurer G. M. Carlisle, Providence, R. I.

The inducements for a large attendance are immense.

Entertainments.

Our "Mound City" fraternal friends have made generous and ample provisions for a royal good time, and Thursday will be the day to remember as "Field Day." With the "St. Louis Soda Developer" for our dry plates, and our tablets, Cramer's full, An-

thony's Detective (camera) will be employed to preserve the dignity of the Association, and shadow every subject not in "full dress" (P. A. of A. badge). The invitation and conditions are officially accepted by the executive committee.

At Convention Hall there will be much business of special importance that will be intensely interesting and profitable to professionals and amateurs.

Exhibits.

Of course everything will be "dry plate." The few "Old Masters" of the "wet process" who have held aloof for years, and told us gelatine would never produce as satisfactory results as collodion, are still striving to "catch up," and they will not be at St. Louis competing for gold medals. But the products of the many with active brain, and skilful touch, who are throughout the world now superlative in degree, will be there, and the walls of the Art Halls will be freighted with art treasures of the many exhibits competing for prizes.

Besides the prize collections, many fine displays will be made not competing for Association prizes—notably the St. Louis members who, through courtesy, voted not to compete.

Every aspiring worker should be an exhibitor to become better identified, and

SUPPLEMENT TO THE PHILADELPHIA PHOTOGRAPHER.

nerved to greater success. We hope many who have heretofore left the work for others will now come forward to talk by photographic examples, and fluent members will augment their influence by also being efficient teachers by precept. The honor of being a first-class artistic photographer we regard as far greater than holding any official position, and the influence of the P. A. of A. aids us all to attain to higher excellence. To our friends who have not made preparation, there is yet plenty of time to creditably "lend a hand"—add to and help mould out the grand design to a majestic whole. At small cost and little trouble, select from your every-day work and give us your best efforts from dry plate negatives. Large displays are not necessary. It is not quantity but quality that will command attention and bring its reward. Remember only members competing for prizes are restricted to negatives made since the Buffalo Convention, July, 1885, and every member whether professional or amateur is entitled to all and equal privileges. The P. A. of A. is a progressive body, and the young scientist and earnest worker within its ranks will be heard from in the near future, while the egotist and drone without will be overexposed and undeveloped, without intensity for social or professional prominence.

The P. A. of A. is on the right track! Come aboard! It will pay you the best dividend of any investment that you ever made.

Framing and Hanging Photographs.

A very neat and cheap arrangement is to make screens of thin boards from three to five feet wide, and as long as you please; and cover with thin cloth of any suitable tint on which to tack the pictures. Moulding around this backing makes a nice frame of pictures and when hung on the wall are much better lighted than pictures tacked on perpendicular surfaces. No tacking to the walls, which are plaster, will be allowed. The art rooms are tinted and have strips along for nails and hanging the frames. Your Executive Committee decided that competitors for Association prizes ought not to give public information regarding

the make of plates, lens, etc., used, until after the judges have made the awards and we hope competitors for individual and medal prizes, will await the medal awards before carding their collections as competing for individual awards. Come, rally once again and bear aloft the motto, "Excelsior for America and American Photography."

D. R. CLARK.

INDIANAPOLIS, May 28, 1886.

The Railroads to St. Louis.

All the Eastern roads—that is, roads from New York, Philadelphia, Baltimore, Pittsburgh, Buffalo, Cleveland, Cincinnati, Detroit, etc., and in fact everything coming into St. Louis from the East—have agreed to make a rate of a fare and a third. Going to St. Louis, one regular fare must be paid; and on the return, by presenting a certificate at the depot, a return fare can be bought for one-third. These are the very best terms that could be obtained.

The same rates have been made by the Chicago and Alton, the Missouri Pacific, and the Wabash from the west of the river.

From Chicago, the three roads make a rate of a round trip for a single fare—the Illinois Central, the Wabash, and the Chicago and Alton.

The Illinois Central Railroad will also sell to all photographers along their lines, northwest of Chicago, a round-trip ticket at a single fare.

Those who wish to purchase the round-trip ticket at the single fare, will have to procure a voucher from the Committee on Railroads, C. Gentile, 229 State Street, Chicago. Those who come over the Illinois Central can stop over in Chicago. Photographers from Michigan should come by way of Chicago. The Michigan Central and other roads sell tickets for a fare and a third.

Detroit photographers can come by way of Chicago to St. Louis, over the Michigan Central, at the same rate as direct from Detroit to St. Louis.

The railroads from Minneapolis and St. Paul will sell tickets to St. Louis and return for a fare and one-fifth.

C. Gentile,
Committee on Railroads.

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of real merit. We solicit a trial, assured that our friends will appreciate
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and note carefully the results.

We would like to have every photographer in the United States, who
 wishes to improve his work, try the SUTER with other best known make,

the SUTER. If he has none, send *direct to us*.

In buying a Lens, *your* judgment is infinitely superior to that of your
 dealer, and if, for any reason, he recommends other lenses, *insist on trying*

discount.

There are, we are informed, some dealers who recommend other lenses
 than the SUTER LENS to their customers, because they get a larger



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TO THE

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TO FIT ANY CAMERA.

Continued Success.

NEGATIVE PAPER.

UNION COLLEGE, SCHENECTEDY, N. Y. April 14, 1886.

THE EASTMAN DRY PLATE AND FILM CO.,
Rochester, N. Y.

SIRS: I send by express a dry-plate holder that fits our camera. Will you send me a Roll-holder to fit the camera, also two rolls?

I am having such good luck with the paper films that I have quite given up glass plates. Somehow we seem surer of success with them, and have fewer failures. Will you, at the same time, send me two dozen $3\frac{1}{4} \times 4\frac{1}{4}$ plates for transparencies?

Respectfully,

MAURICE PERKINS,
Professor of Chemistry.

AMERICAN FILMS.

THE PHOTO-GRAVURE CO., 853 Broadway, N. Y.
April 23, 1886.

THE EASTMAN DRY PLATE AND FILM CO.,
Rochester, N. Y.

DEAR SIRS: I have had no experience in lantern slides, so I cannot say of my own knowledge that the film will surely answer. But if I were going on a trip to Europe I should surely take nothing else than the American Film. What better quality would any plate of any kind give than is shown in enclosed negative?

Yours truly,

E. EDWARDS.

NEGATIVE PAPER

714 Market St. Chattanooga, Tenn., April 16, 1886.

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Fraternally yours,

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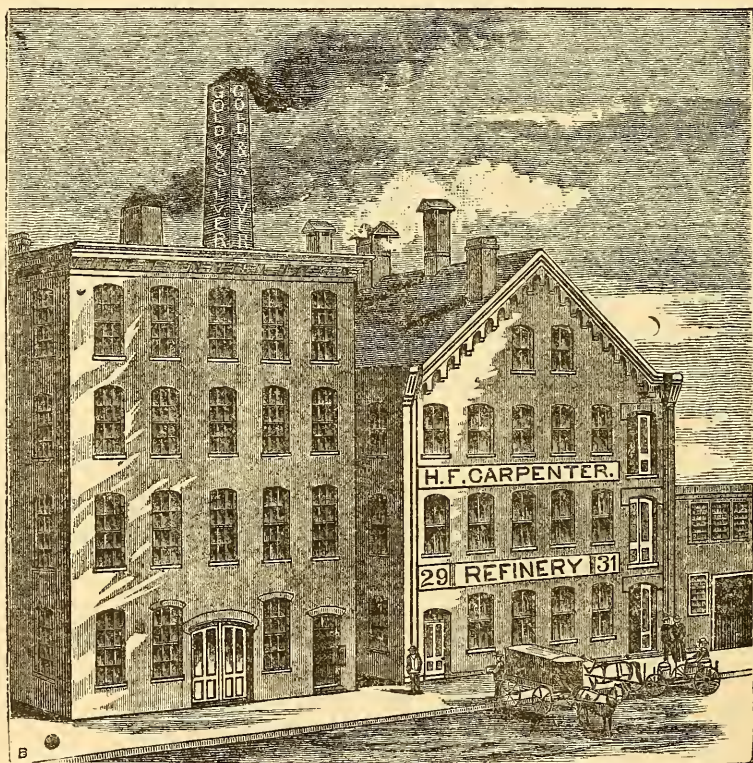
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And gather honey all the day,
From every opening flower!"

When Isaac Watts wrote that immortal verse, which for generations has served to shame many a laggard into photography or some other honest effort for a living, he only used the bee as a figure to represent the amateur and adept photographer, and to "gather honey" meant to read carefully from the "opening flower," which is plain English for photographic books.

And now, as the season of sunshine approaches, is the proper time to follow the injunctions of the wide-awake and observant bard.

To enable the enterprising "busy" ones to do this, we have combined with the Scovill Manufacturing Co., to offer, for sixty days only, certain of our publications at one-half price, *i. e.*, four dollars will purchase eight dollars worth of books, postage paid to any American address. Dr. Vogel's *Progress of Photography*; Tissandier's *Hand-Book of Photography*; Robinson's *Pictorial Effect in Photography*; Gihon's *Guide*. A few words as to these.

Dr. Vogel's *Progress* is the best instructor on dry-plate manipulation there is; no library is complete without it. It treats of all classes of work, including the æsthetic department and finishing and printing the negative. It is profusely illustrated; handsomely printed; bound in cloth-gilt, and is exhaustive on the subjects of light, chemistry, optics, apparatus, processes, technique, and amateur photography. It is published at \$3.00.

Mr. H. P. Robinson's *Pictorial Effect in Photography* teaches wrinkles and dodges that you would never dream of in your photography. It is as full of bright, brilliant ideas—told so pleasantly—as a film is of molecules. It is the best art authority you can study. It is amply illustrated, is bound in paper (cloth 50 cents extra), and is published at \$1.00.

Gihon's *Guide*, though called the *Colorist's Guide*, is by no means confined to instruction in coloring. Its chapters on linear perspective should be memorized by every one who can focus. Every page instructs. It is bound in cloth, finely illustrated, and published at \$1.50.

Tissandier's *History and Hand-Book of Photography*, is one of the most attractive

books on photography that has ever appeared in any country.

Part first gives a history of photography, from the discovery of the camera obscura by the Italian philosopher, Porta, including all the interesting details of Daguerre's and Niepce's experiments, their partnership, the death of the latter, the final perfection and publication to the world of the daguerreotype process, the discovery of photography on paper by Talbot, and down to the taking of negatives.

Part second treats of the operations and processes of photography, describing and illustrating the studio and apparatus, the manipulations of the negative process; all the operations of the printing department; theory and practice, including the modifications required by various kinds of photography, such as landscapes, portraits, skies, and instantaneous photography, retouching, enlargements, dry processes, etc.

Part third enumerates the applications of photography, such as heliography, the Woodbury process, photosculpture, photographic enamels, photomicrography, microscopic dispatches during the siege of Paris, astronomical photography, photographic registering instruments, the stereoscope, photography and art, and the future of photography.

The appendix describes panoramic photography, the heliotype process, the photoint process, the most approved formulæ of the wet collodion process, a simple method of repairing dry plates, and English weights and measures.

The book is beautifully illustrated throughout with fifteen full-page engravings and sixty wood-cuts. It comprises three hundred and twenty-six pages, and is printed on heavy tinted paper. It is bound in cloth, and published at \$2.50.

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Societies and others forming libraries will do well to secure sets before they are all gone, for after all, the stock of sheets in the bindery is limited.

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

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Has passed through the ordeal of its first summer, and its manufacturers have almost entirely escaped the usual trials of fogging, frilling, and other perplexities. In fact, the quantity sold in July exceeds that of any former month.

Its *unusual combination of sensitiveness and brilliancy* have made it a general favorite, and the territory into which it penetrates grows constantly larger.

AMONG ITS RECENT ACHIEVEMENTS ARE

Instantaneous Views of the Decoration Day Parade (3d size stop), taken without sunlight, used as a Bulletin Illustration.

Views of Horses and Carriages entering Central Park, trotting rapidly across the field of view, sharp and clear cut. These will appear in the Bulletin.

Views of Steamboats going twenty miles an hour directly across the field, taken at 5.30 P. M. Sharp and clear as if standing still.

The Life-size Portrait of J. F. Ryder, by McMichael, shown at the Buffalo Convention, was made on an 18 x 22 Stanley Plate in five seconds, with a Dallmeyer Rapid Rectilinear Lens.

Instantaneous Views, by Mr. Henry J. Newton, President of Photographic Section of the American Institute, about which he writes:

"I found that **sunshine was not absolutely necessary for instantaneous negatives on these plates**, and I think a majority of the negatives I send you were made when there was not sufficient sunlight to cast a visible shadow. I think it is due that I should say that the plates worked satisfactorily in every respect, exhibiting extreme sensitiveness, responding readily to the developer, and going steadily on to the finish.

P. S. I used the Prosch Shutter at its full speed."

(Signed),

H. J. NEWTON.

And now to crown the whole, Mr. Parkinson writes as follows:

E. & H. T. ANTHONY & Co.:

PARKINSON PHOTO. PARLORS, 29 W. 26TH ST.,
NEW YORK, August 12, 1885.

"GENTLEMEN: I take pleasure in assuring you that I made a group portrait in my gallery of an old lady of eighty years, with child of four years, a month or two since, on a **Stanley 18 x 22 plate, in one second**, with Dallmeyer Rapid Rectilinear Lens. A little more time would have done no harm; but the picture in question has elicited as many words of praise from visitors to my studio as any other in same length of time."

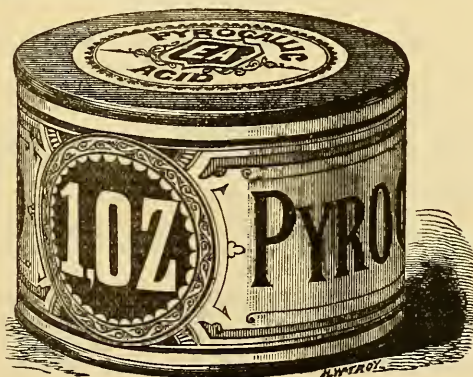
Yours truly,

W. B. PARKINSON.

The Stanley Dry Plates can be had from any dealer, or direct from

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Another thing that has gone rapidly to the front is the



When Dry Plates were first introduced it *was not yet on the market*, and the old stereotyped developing formulas do not mention it; but in the developing formulas of the more recent *popular plates*, as the STANLEY and the ST. LOUIS, the E. A. Pyro is recommended as most desirable, and in the EASTMAN DRY PLATE CO. formulas the same preference is given ever since they *knew of its merits*.

It is always used by the veteran "Roche," and constitutes one of the main elements in the popular Cooper's Developer.

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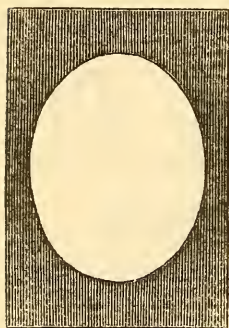
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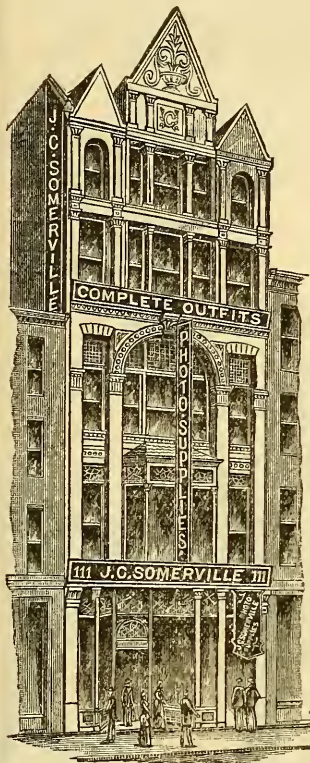
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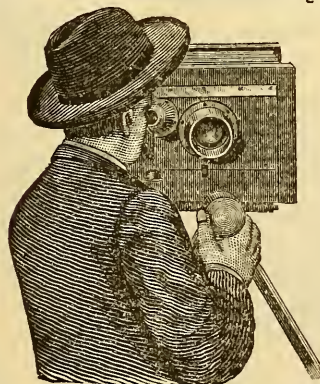
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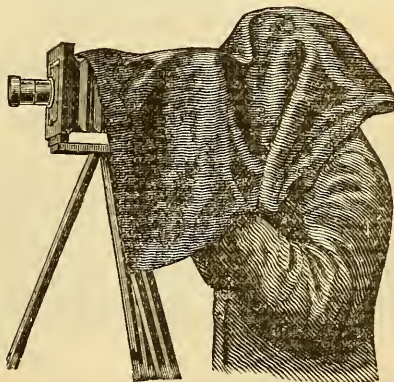
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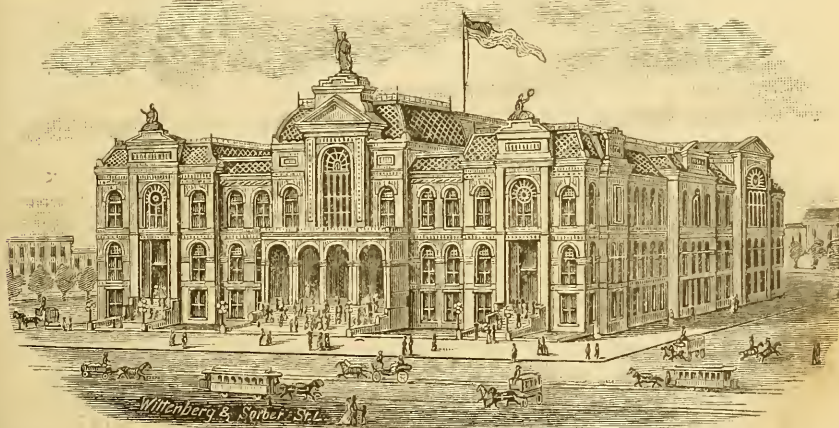
Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XXIII.

JUNE 5, 1886.

No. 275.



ST. LOUIS—ABOUT OUR LAST CALL.

WE have already published the calls of President Potter, Secretary Benecke, and Mr. Joshua Smith to the fraternity, and add our voice in a final exhortation to the craft to turn out and make the Convention of '86 a success. That everything possible will be done to make its visitors happy is assured, and with twenty-two medals, several special offers, and \$600 in cash prizes to choose from, the photographer must be indeed hard to move who stays away.

It will pay him to go. He will have a good time, of course, but more than this, he will meet his fellow-workers, and learning the different thoughts of different sections, will widen his own. He will see one of the

finest collections of sun-pictures ever brought together. He will hear a number of valuable papers, and get more precious "little hints" in conversation and discussion. He will be ready to go home again with a heavy freight of new ideas, enough to last him almost to the next convention; more than he would have picked up in his home in the space of ten convention times. It is a good thing to glorify your calling. If you believe in it, go, and help push it forward still more. Go and see what it is capable of, what other men have done with it, and what you may do. In spite of strike and suspense this is a growing time for photography. The waters are gathering to the flood that must be taken at the tide, and may indeed lead on to higher

fortune for our art. It is hardly needful at this of all times to tell of the benefits of organization. Let the craft come and push all together, and in so doing, in spite of the adage about elevation by the boot-straps, they shall lift themselves.

To the photographer in smaller towns we would make a special appeal. The art he follows is growing. There are lots of things probably he has not heard of, many points he does not know. He may expect a number of revelations at the convention, and according as he appreciates, assimilates, and makes use of them, so will his work improve and his success increase. For him especially will a visit to the convention be a profitable investment. He is apt to have some very good ideas of his own, and the brighter he is the more he will learn.

Coming down from the intellectual to the social, that the convention's four days will be pleasant is abundantly certain. Visits and excursions have been arranged in and around the city, and the well-known hospitality of St. Louis will be fully extended to the visitors. Mrs. Fitzgibbon-Clark, in her last number, generously sings to one and all:

"Welcome to old St. Louis, from over land and sea,

We invite you all to join in our national jubilee."

With such a welcome who can remain at home? We hope to see you there, and be sure you come and give us your greeting.

A list of the special rates, secured from the hotels of St. Louis, by Messrs. G. Cramer, F. Guerin, and W. H. H. Clarke, the committee appointed for that purpose, published in the *St. Louis Photographer*, is appended:

The places enumerated below are all first-class hotels.

Southern, two or more in a room, \$2.50 per day; single room, \$3 per day.

Lindell, according to room, \$2.50 to \$4 per day; 50 cents per day discount.

Everett (European plan), with meals, \$1.50 to \$2 per day; lodging only, 50 cents to \$1 per day.

Hotel Rozier, \$2 per day.

Koetter's (German), \$2 to \$2.50 per day.

St. James (can accommodate 600), \$2 per day.

Barnum's Hotel (can accommodate 300), \$1.50 per day.

Hotel Barnum (European plan), rooms, 75 cents per day; meals, 35 cents.

Hotel Glenmore, \$1.50 per day.

Planters' House, \$2.50 per day.

Laclede Hotel, \$2 to \$2.50 per day.

Hurst's (European plan), rooms, single, \$1; double, 75 cents.

Hotel Brown, three or more in a room, \$1.25; single, \$1.50.

It will be seen that good beds can be secured for fifty cents per day (24 hours). Persons who may so desire, can economize by getting a first-class lunch at restaurants at from ten to fifteen cents.

Those who may not care to go to a hotel can secure lodgings in private families, and take their meals at the restaurants.

The railroads also will issue tickets at a reduced rate.

TAKE NOTICE: All photographers designing to attend the St. Louis Convention, will please ask for convention receipts when purchasing tickets to St. Louis.

R. BENECKE,
Local Secretary.

LIGHT FOR THE DARK-ROOM. BLUE PRINTS.

BY C. G. BUSCH.

PLEASE find enclosed \$4.00, and send me the four books which you advertise as a big offer in your issue of April 17th. I am in possession of your *Photographics*, also the *Sunbeam* up to its last edition, and have bought since the last two years, your *Mosaics* and both English yearly publications.

Please excuse my writing if I should spell words wrongly, I am a German by birth, and my English is picked up simply by common use, and not learned grammatically.

But my excuse that I write to you must be, that my eye or the sense of sight what I want to know, by means of this organ, is a weakness of mine, which I have been gratifying for about twenty-five years; so I am very well acquainted with the microscope, of which I have a good one, also telescope of about 100 diameter power. Those two instruments I have used, especially the

first one, for twenty-five years; and I have seen and studied a great many small and big things. I also have a magic lantern. Since two years I also have been enticed to try a little photography, and it has been fascinating more and more so. In 1867, I commenced making also out of the common kaleidoscope, an instrument which is as near perfect optically as it can possibly be constructed.

Please accept one of them as a token of gratitude for the enjoyment I have received from the reading of your publications. But all this, of course, cannot interest you much, so I have to state this in order that you may see the point I wish to make for the benefit of the photographic art, if there is anything in it.

It is said that light passing through a colored medium permits only such rays to pass through it as its color itself is. In making my kaleidoscope I used, of course, glass colored with metallic acids for red, blue, and yellow, green, violet, etc., but I found all those colors were not pure colors, and by a very simple way this is proved. Take, for instance, dark cobalt blue glass, bring it into the flame of a Bunsen burner, and draw it out fine. What becomes of its color? It turns to a reddish-gray, which shows it is a mixture of blue and red. The fire does not destroy the blue, because if you run the fine hairs, like thread, over the flame into a globule again, it is of the original color. So also the red; draw it out, it will be as much blue as red, but the flame will destroy the red entirely, if made of gold and exposed to too high a temperature. The yellow, orange, or amber, is also not a pure color in pot-metal, as it is called; it is produced by charcoal—its impurities make it dark but not more yellow. So I looked for some other means to produce pure colors. I have devoted about nineteen years to look about me for pure yellow, red, and blue; and think I have pretty nearly yellow and blue, but red, I must confess, I have not been able to produce or see with all my experimenting. I have hundreds of tubes filled with liquids, colored with all imaginable or procurable substances, but the red, by testing from its deepest to its lightest shade, always turns either into blue or yellow. My testing is this: I mix a

liquid in a square bottle, say four to six inches in diameter. This, of course, seems to be always a decided, true color; but draw out a glass tube into a hair or capillary tube, let the liquid ascend into this, as it very readily will, and what will you see? The liquid thinned down is not red; it may be a reddish or bluish-gray, or orange, or yellow, most always a third color. It is the blue in it which gives the grayish tinge.

My object in all this has been to procure in the kaleidoscope colors which should be by lamplight the same color as by daylight. I have succeeded in doing this. You will find my liquid filled blue tube is perfect blue by day- and lamplight. Lay the blue and yellow liquid tubes so that the light has to pass through both and it will be a beautiful green by both lights, so the blue superimposed on the red will give a brilliant violet, and very fine shades are produced in the kaleidoscope by one color being thrown into the other one by reflection and refraction as the case may happen to be. Of course, the common public do not see this, and I do not expect them to see it, but it has been my hobby to make the kaleidoscope as perfect as I know how, and in doing so it has gratified me as much as the money it brings, if not more. In all the experiments of producing the primary colors, I was compelled to make the solutions in alcohol or acids; pure water I could not use on account of its congealing in cold weather and bursting the tubes containing the liquid and so spoiling the instrument.

The blue glass apparently lighter in color is nearly pure blue, the piece is about one inch long and one-eighth inch wide and flat, and its coloring matter is copper. This light blue, superimposed with red, looking at the sun, softens twice as much in the light of the sun as the dark, or cobalt-blue will.

But now back to my first proposition. White light passing through a colored medium, is decomposed and only lets light pass through of the same color as the medium.

The so-called chemical rays have their greatest effect on the right side of the spectrum—but are we sure they are *all* separated out? And are the left-side colors devoid of chemical action entirely? It is supposed so, but are they?

Yellow in the spectrum lies on the left side

of the centre of the spectrum, if I may so designate it, and should hardly contain if the prism has perfectly plane surfaces (to obtain absolutely plane surfaces is probably an impossibility) any chemical rays, and at the same time has also the most illuminating power. Now to my mind this is, and must be, the illuminating source for the dark-room, or why not say no chemically acting light-room.

Now one more observation which confirms this belief: That the chemical rays can and should be separated easily by this medium, if obtainable perfectly pure.

Take the table for exposures and it nearly demonstrates that the angle at which light penetrates our atmosphere is about all that is necessary to determine the lengths of exposure of a plate. If those tables are correct it shows that our atmosphere acts as a prism would on white light, and throws the chemical rays out so that they do not reach us in such proportion as when the light falls more perpendicularly. Of course those tables are made for forty to fifty degree of latitude, northern hemisphere, and cannot be correct for the southern hemisphere or higher or lower latitudes. If this subject is sifted, by photographers nearer the equator and further north, and they make out such tables from their experience, it would corroborate or disprove the theory of our atmosphere acting as a prism, according to what angle the light of the sun falls on it. But all this is meant for perfectly still atmosphere. There is the vibration in air, caused by heat and vapor in motion, which is on some days so great that the telescope will not show objects one-tenth, yes one-twentieth, part as well as other days. Now on those days it would be almost impossible to take a somewhat distant landscape view, and it would probably be advisable to do it with very quick plates and drop-shutter. I know that most of the craft will laugh at this idea, but let them look through a telescope, how the thing acts, and they may think differently.

I come now to the following conclusion how to construct a dark-room lantern (having no spectroscope, I cannot verify it): If you think it worth while, some scientific savant of yours in New York may test it

and make it of benefit to the craft. Take a flat wick kerosene-oil lamp, and get oiled paper, colored on both sides with a strong solution of picric acid in alcohol, acid, or water (alcohol is best, it stains the paper all through), and oiled, say, with common sperm oil. This paper will be of almost perfect yellow; the coloring matter is so pure, that if you have a strong solution in a bottle six inches in diameter, it hardly shows any more color than a hair-tube with a diameter of one millimetre and less, filled, with it. It is, therefore, pretty nearly a pure yellow. Any good manilla paper brushed both sides with the picric acid solution, and then oiled, will answer the purpose. I constructed a lantern 7 inches square and about 4 feet 9 inches high. The lantern skeleton consists of four pieces of pine, 1 inch square, 4 feet 9 inches long, held in position by eight pieces 7 inches long, put inside the frame, four on top and four on bottom. The colored and oiled manilla paper is 30 inches wide. I now cover what will be the upper part of the lantern with a double thickness of this paper, which will give quite a good light; then cover the lower part on three sides, two thicknesses. This overlaps the upper part 3 inches, so the back side is open. Then I fitted over the lower part two more thickness of this paper all around the frame, that it could slide easily over the upper part. The bottom is a pasteboard box $2\frac{1}{2}$ inches square, the sides $1\frac{1}{2}$ inches high. Into this I set the lantern frame. The top is covered with thin sheet-iron, so that there is plenty room for the warm air to escape, and at the same time it is so constructed that not a streak of white light is to be seen through any of the necessary openings. I find plenty of fresh air for combustion is admitted, because the lower sliding part of the lantern is fitted very loosely. To put the lighted lamp into the lantern, I simply raise the movable portion of the covering and put the lamp in so that it is edgeways toward the side I want to use most. Therefore I call it the front opposite from where I left the opening to put the lamp in and drop the lower part of the covering again. Now in front of the edge of the flame I put a narrow (about $\frac{3}{4}$ inch wide) opaque object (say a piece of tin, brass, or copper), so that the rays of light can only impinge at oblique

angles on the paper screen, and I should think the sifting of the chemical rays would be complete if they can be entirely separated at all.

I only lately constructed this lantern and did not test it very much yet. So far I have not seen any signs of fog, and my room is illuminated so that I can see all around very plainly.

I worked almost in darkness with the common ruby lantern. I also colored some paper to what is usually called ruby paper—it is a dark brown. For very quick plates I intended to put on one more thickness of this over it. But in all the reds I tried—all the anilines, eosins, methyls, etc.—I detected other colors. So I actually do not trust much to the red or ruby, because it very probably is mixed with the violet of the spectrum so much nearer the chemical rays, and may appear a deep red and is not non-actinic. If you should wish for any of this yellow paper to test it, I will furnish it to you or the person who wishes to try it with the spectroscope, free.

But probably you know more about it than I imagine, and if so, let what I have written fall into the waste basket. I have not been very logical, and wrote this on the spur of the moment. Any question you wish to ask I will answer gladly if I can do so.

Yet once more I have to come back to this sifting process. I argue this way. Say a ray of light contains 10 parts of chemical rays, and is sifted by passing through a medium. It loses 9 parts of its chemical rays, passing into air and again through a similar medium, losing 9 parts again, and so through two more it would contain 10,000 parts less than at first. I may be entirely wrong, but it seems to me plausible.

Another thing. I have been experimenting to make my own blue paper, and I enclose a few blue prints made on this paper. The best result I got in the following way. I make out of the sticking-paper which is sold by the roll, four loops one inch long, fasten these on each corner of a sheet I wish to paint, put through those loops a thread, of wool is best, it does not cut through the loop so easily, and put a little weight on the end of each string, to hang down over the table I want to use to paint the sheet.

This is for keeping it in place, and by stretching, to remain flat. I use a fine camel-hair brush about $1\frac{3}{4}$ inches to 2 inches wide. Put into a dish 2 drachms of water and let the brush fill with water, besides the 2 drachms, which is also a drachm or a little more. I brush these 2 drachms of water on to the sheet as uniformly as possible, by taking it up in at least six to eight times. The sheet is pretty well saturated now. I have two solutions, No. 1 is $1\frac{3}{4}$ ounces of citrate of iron and ammonia in 8 ounces of water. No. 2 is $1\frac{1}{4}$ ounces of red prussiate of potash in 8 ounces of water, or both, if less is wanted, in proportion. Take of each of the solutions $\frac{3}{4}$ to 1 drachm, mix, and brush on the wetted sheet as evenly as possible in all directions, bear on very lightly, and take it up say six to eight times. Now your brush contains a very strong solution, Put 1 more drachm of water in the dish and work it up, and after this add $\frac{1}{2}$ drachm more water; there will be now a very weak solution in the brush. If you want to do more than one sheet, I would advise two brushes and two dishes to use, one for wetting and the other for putting on the solution. If you do so, $\frac{3}{4}$ drachm of each solution for each sheet is just right and enough. By examining the print during printing, the details show up very nicely almost as a silver print, and too much of the solution put on makes it only harder for you to see if the print is done or not.

The paper prints the quickest fresh, but the most delicate tones are got out when it is a week or ten days old. It requires more time then, but the details are better. By this method I think the sensitive material lies in more compact form on the surface, than if floated or put on without wetting the sheet. I enclose a few of these blue prints. The 4 x 5 and the little ones are on this paper; the long, narrow one is on floated paper, and does not show details as well.

I have also been experimenting (or say fooling away my time) with some old processes. Among others with Obernetter's old process of printing without the salts of silver. I send you a half and whole toned print, The Obernetter's can be developed a great deal sharper yet.

So, Mr. Wilson, excuse my boldness. I am

sixty-two years old, but sometimes can get enthusiastic still. I may be all wrong, and I could test my light by trying to make lantern slides by it, but, as I said before, I wrote this on the spur of the moment, and we are so busy just now. I reside on a farm, and the weather is like June, and I have hardly any time to spare, but tend to pressing jobs, etc.

I hope you will enjoy the kaleidoscope. Take the front box and examine the objects and you will see what I mean by pure blue and yellow. I do all the work on the kaleidoscope myself except the stand and brass work, putting the spokes in also. If you are in possession of one, give this or the old one to a friend who will appreciate it.

CLAREMONT, N. H.

NEGATIVE PAPER AND FILMS.

BY "KEHAMA."

A FEW remarks on the new era in photography, brought about by the introduction of negative paper and films, may prove acceptable and useful to the readers of the PHILADELPHIA PHOTOGRAPHER.

In the first place, I would draw your attention to the negative paper, and in so doing I will be as brief as possible; the more so, as it has been pretty well discussed in the journals of the past year, and later in *Mosaics*, the *Year-Book of Photography* and the *British Journal Almanac*.

The negatives I obtained by this process were very fine, and had it not been for traces of *grain* in the resulting pictures, I should have considered them equal to any I had ever obtained on glass. I found these traces of grain very plain on several lantern transparencies I made from the negatives. The oiling necessitates a high temperature to insure its penetration. Translucine was found to be preferable.

There is placed within our reach something that has all the advantages *claimed* for the negative paper without any of its disadvantages. I refer to "Films," and in reading over the journals of the past year I have been much surprised that this process has not been brought to the fore.

The "Film" consists of an *insoluble* sen-

sitive gelatine emulsion attached to a paper support by means of a layer of *soluble* plain gelatine. The paper serves as a temporary support during the operations of exposure, developing, fixing, and washing, after which the film is laid down on a prepared sheet of glass; the paper is removed by warm water, which dissolves the soluble gelatine layer and leaves the film on the glass; the paper is then replaced by a sheet of gelatine, and the whole stripped from the glass ready for printing. Full details of the operations outlined are given further on.

This process gives a clean, transparent, flexible negative, of good printing quality, having all the advantages of glass, and neither its weight, its fragility, nor other disadvantages.

A film negative is about one-twentieth the weight of an ordinary glass negative of the same size.

These films are made in the same form as negative paper, for use with any of the roll-holders in the market, and I venture to say that when once they have been given a fair trial, no one will go back to glass dry plates, much less to the negative paper.

I feel no doubt that this is to be the coming thing in photography, and when I think of the thousands of miles I have carted glass dry plates, with all the attendant inconveniences, and the fear and trembling I have gone through lest they should be broken, and then think of the ease in future ramblings when armed with a roll-holder in place of twenty or so double backs, and rolls of films instead of glass dry plates—well, I can only say that the change seems as great as that between the old wet-plate days and the dry.

If the makers will follow out the idea given in a recent number of one of the English journals, and attach a piece of orange paper at each end of the strip of film before winding it on the roller, one would then be able to change them in ordinary light without any risk of fog. The strip at each end would require to be double the length of holder—say for a 10 x 8 plate, twenty inches at each end; the films being wound so very tightly round the spools, no light would penetrate at the ends.

I find that the best formula for developing is the following :

No. 1.

Sulphite of Soda . . .	6 ounces.
Distilled or boiled Water . .	1 quart.
Pyrogallie Acid . . .	1 ounce.

Dissolve the sulphite first, and then add the pyro.

No. 2.

Carbonate of Soda, <i>pure</i> . .	$\frac{1}{2}$ pound.
Water	1 quart.

To develop, pour into a clean tray the following :

No. 1	1 ounce.
No. 2	1 "
Water	1 "

Immerse the exposed film in a tray of clean, cold water, and with a soft camel's-hair brush gently remove the air bells that cling to the surface of the film. As soon as limp, remove the film to the developing tray, and proceed with the development the same as with a dry plate. I go over the film with a camel's-hair brush whilst in the developer, and I think the result pays for the little extra trouble incurred. The image should commence to appear in ten or fifteen seconds. If the lights come out slowly, and with no detail in the shadows, add, not to exceed one ounce, of No. 2. If the image appears too quickly, add from ten to twenty drops of the

Restrainer.

Bromide of Potassium . .	1 ounce.
Water	6 ounces.

Keep this in a dropping bottle consisting of an ordinary bottle having two notches cut lengthwise in the cork, on opposite sides.

The film may be examined from time to time by transmitted light by holding it up by the corners. When sufficient density is obtained, wash the film in two or three changes of water, and then immerse in the

Fixing Bath.

Hyposulphite of Sodium . .	4 ounces.
Water	1 pint.

Mix fresh fixing bath for each batch of negatives. Use no alum in fixing bath, or, indeed, at any time with these films.

Films fix quicker than glass dry plates, and the completion of the operation can be ascertained by the even, translucent appearance from the back while lying in the bath, or by examination by transmitted light. After fixing, wash in several changes of cold water, the longer the better, and the film is then ready for transferring to its final support.

Coat a clean glass plate, polished with French chalk, and, say one size larger than the film, with plain collodion; well wash until all greasiness is removed. Lay the film negative face downward in a tray of cold water, and slip the glass plate, collodion side up, under it. Grasp the film by one edge on the glass and lift from the tray, allowing the water to drain from the side furthest from you. All surplus water can now be removed by the scraping action of a rubber squeegee and the plate supporting the film set to soak in a dish of warm water, increasing the temperature until the paper commences to blister. Lift one corner of the paper with the point of a pin and gently pull it off from the film, which will adhere to the collodion on the glass. Remove from the film with warm water all traces of the soluble substratum which was between the paper and the film.

The image-bearing film is now on the glass, with the paper removed. If intensification should be necessary, the operation can be performed in the same manner as with glass dry plates.

Intensification.

Mercuric Chloride . . .	1 part.
Potassium Bromide . . .	1 "
Water	50 "

Allow the film to remain in the above bath until it is thoroughly whitened; the bleaching being complete, the mercuric solution is rinsed off, and the negative is immersed in a mixture of equal parts of a saturated solution of sodium sulphite and water; the darkening action will be seen to take place steadily and slowly, just as when ammonia is used. The negative must be well washed, and is now ready for strengthening the film by adding a sheet of gelatine "skin." I prepare these skins any length of time beforehand, and keep them between

the leaves of a book; they are thus always ready for use. I am indebted to Mr. Edwards, President of the Photogravure Company of New York, for the manner of preparing these skins.

Take as many sheets of thick glass, with ground surface, as you wish to make skins; polish well with French chalk, and flow with the following solution:

Gelatine (Nelson's, No. 3)	. 1 ounce.
Water	. . . 10 ounces.
Glycerine	. . . 2 drachms.

Set on a level place to dry. They may be made in large sheets and cut up for use.

Take a piece of skin prepared as above, the same size as your negative film, and put it into a tray of clean, cold water, and as soon as limp lay it upon the negative film (already held on the glass by the collodion) and press out all surplus water with a rubber squeegee; place in a rack to dry. When dry, run a knife round the edge and lift the film from the glass. It will be found to be perfectly flat, and will remain so. The collodion acts as a varnish.

By using ground-glass for preparing the gelatine skins a mat surface is given, and so one gets a splendid tooth for retouching if any is required, and it also softens the prints. If a mat surface is not wished, then the skins should be prepared upon plain glass. When attaching the skin to the negative film, be careful to place the glazed side next the film.

An objection may be raised to the use of collodion. If so, all that would have to be done would be to wax the temporary glass support with the following solution:

Yellow Beeswax	. . . 1 drachm.
Benzole	. . . 3 ounces.

And proceed as though the plate had been collodionized. I prefer the collodion for the reason that it acts as a varnish for the negative.

If it is wished to print titles on the negatives to show on the resulting prints, proceed as follows: Take rubber type and print on the negative film after it has been fixed to the temporary glass support and the paper stripped off, and before attaching the gelatine skin. The result is the most satisfactory of any way of titling I have ever seen.

If my instructions are carried out, I can promise a negative that will delight any photographer.

Some two hundred film negatives may be packed in a box that would only hold about one dozen glass plates. Valuable negatives might thus be kept in a safe without any inconvenience, and thus there would be no risk from fire.

I send our worthy editor a negative made as I have described above, and perhaps he will say whether it is all I claim for it.

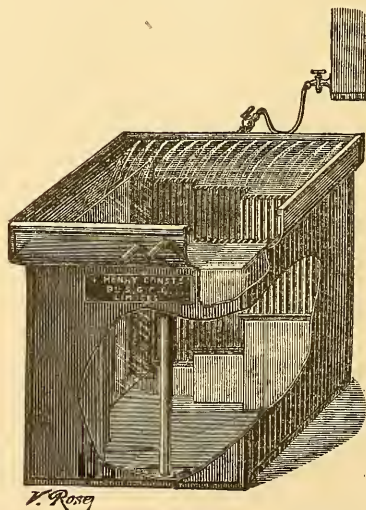
[It is all one could desire.—ED. P. P.]

(Translated for *The Philadelphia Photographer*.)

HOW FRENCHMEN WASH THEIR GELATINE PLATES.

MR. HENRY, of Limoges, has patented a washer for gelatine plates for which the following advantages are claimed.

FIG. 1.

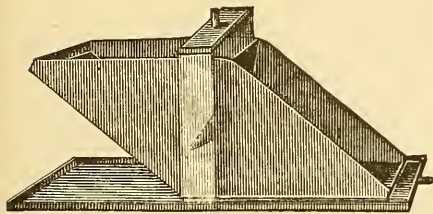


Any thickness of glass can enter the grooves which are in such a way that they do not abrade the gelatine film. The water is divided over the whole surface of the box and is maintained always at the same level by means of a siphon. When the pressure of water is very variable, and when the siphon does not suffice, a device is used to

avoid an overflow. Finally, the plates may be removed with the greatest care.

Another automatic washer, invented by Captain Gorcoix, is formed of a waterproof box in which is suspended a metal recipient rendered impermeable by means of bitumen

FIG. 2.



of Judea. This recipient is formed of two triangular or prismatic troughs joined by one of their sides. The water introduced from the top accumulates in one of the troughs. When it reaches a certain level its weight brings it down and lifts up its companion. This water runs into the dish loaded with the salts to be diluted, and during this time the other trough is being filled in its turn to obtain the inverse motion. There can be no question that the water loaded with deleterious substances is entirely thrown out and renewed at each rise and fall. The time of contact is made greater or less by regulating the flow of water.—*Le Progrès Photographique*.

PICTURES FROM NEWFOUNDLAND.

WE have received from Mr. S. H. Parsons, of St. John's, Newfoundland, a large variety of examples of his work, of various sizes, from cabinet up to 14 x 11. Not only are there specimens of the excellent portraiture with which he supplies the citizens of St. John's, but also a large assortment of views of the scenery in that part of the Queen's dominions.

The portraits are soft and clear, good in tone and pose. Among the best of these is a little girl in old-fashioned cap, mitts, and high-waisted dress, which is a genuine picture, a little St. John's Penelope Boothby, Reynolds' wee maid. The run of the portrait work is decidedly above the average, some large panels of full-length figures be-

ing especially well disposed, expressive, and natural. Two groups are well composed, and with admiration we note that every one of the seven small children in one of these looks unconstrained, and is without a trace of the "I'm-being-taken" expression.

Five very successful interiors show the altars and a large crucifix in two Roman Catholic churches in St. John's.

The landscapes prove in a splendid series of marine and river views that Mr. Parsons has well availed himself of his happy situation for that style of work. He displays his artistic sense not only in selecting the point of sight, but also in ability to choose the best light for his pictures. Two "looking-off" views illustrate this well. One looks from high up on the island down a stream's ravine-bed, over the shore, and off across the water, and is charming in breadth and warm hazy light. The other is from a road, showing river-flats, pine forest, and far mountains, in delicate distance.

Another view "Gathering in the Hay," shows the laden wagon, that with the dark trees cleverly gives balance to the picture, while the North River and its hills are in the distance. The lights and darks are well arranged, and the whole scene is admirable in composition. "Buy any Rabbits, Sir?" is a fine, rough outdoor scene, where the young trapper holds up his game, while the horse and wagon are just in the right place, opposed to the rude log barn. The foreground broken with rocks and scrub is in perfect keeping. In contrast to these summer scenes is a view of the ice in St. John's Harbor, piled up and jagged, holding the ships in its close embraces. The bits of the rugged harbors of Newfoundland are eminently picturesque and well chosen. One remarkable view shows narrow Petty Harbor framed in rocky headlands, and with its fringe of wharves and frame huts, in bird's-eye view from the hill far above. Others show the fishing fleet at anchor, with the dark hulls and sails reflected in the placid water of the bays. The black boats accentuate the landscape, and are of immense value in the pictures, which are perhaps the most characteristic of the lot.

Another series of views shows the forests in winter after an ice-storm, with every twig

crystal-coated and boughs bending with the weight. The network of icy branches is a unique fairyland effect.

Technically, Mr. Parsons' views are clear and well printed. In another column we reprint part of his letter giving interesting details of his methods. He has kindly promised soon to send some negatives for the illustration of our magazine.

HOW TO PRINT.

BY CHARLES KRAUSS.

PREFACE.

HOWEVER limited my experience may appear to photographers in general, I venture to give it to the fraternity, if only for the benefit of beginners.

It has been my pleasure to read a good many works in this line, *Wilson's Photographics* among others. I wish to act upon the suggestion of some of our most talented authors in photography, that every one should give his experience (though only partly successful) to the photographic public. I have had but five years experience. I was first employed by Messrs. D. Bachrach & Bro., of Baltimore, in the year 1881, for whom I worked almost two years as assistant printer. After having worked for several other prominent Baltimore photographers, I left that city for the purpose of gathering further experience in the south and west. I have tried almost every kind of silvering and toning baths, from which I have adopted the following method, which has two great recommendations—simplicity and certainty.

Hoping what follows may meet with the approval of our great authors on photography, as well as that of the practical photographer, I begin.

I.—THE SILVER SOLUTION.

1. The water for this is conveniently provided for, thus: Take two gallon bottles, fill them with hydrant water, in which you pour enough permanganate of potassium to turn the water deep violet. Stand the bottles in the open air or sun for several days until clear as crystal. Of course, arrange it so as to have the bottles clear alternately.

2. The bath should be kept sixty grains strong in cold, and fifty grains in warm weather. When tested the blue litmus paper should turn slightly pink, but very little. By keeping the bath in its proper condition, one drop, or two at most, of either acid or ammonia will suffice to give the litmus paper its proper color, slightly red, but very little.

Keep the silver solution in wide-mouth bottles (jelly glasses so called), as they are easily cleaned with warm water and a cotton swab. If two baths are on hand they should, of course, be used alternately. When through silvering, add three or at most four drops of permanganate of potassium to the bath. But do not add more than four drops of same, as it will precipitate the silver, which must be avoided.

Stand the bath in the printing window. It will clear in one day, and can be filtered as clear as distilled water. You can use it without filtering, if it is poured off slowly, but as filtering is a surer method, I always filter.

3. *Trays.* When rubber trays are used it is advisable to coat them with beeswax or paraffine, as they sometimes peel off on the inside. Another advantage is, the solution does not adhere to the tray, and the tray need not be washed out every time it is used. The coating is done in different ways, the following being the best: Heat some beeswax, pour it into the tray and iron it down, with a warm flatiron, thoroughly on the bottom and sides of the tray. The same treatment, more thoroughly carried out, will make wooden trays recommendable for silvering. The wax is better than asphaltum, which is generally used in wooden trays. The bottom of the tray should be of one single piece of wood. The wax must be more thoroughly applied to corners and crevices of the tray, and pressed into the pores of the wood. The outside of the dish requires the same treatment.

Wooden trays lined with oil-cloth are extensively used.

II.—SILVERING.

1. Always keep your albumen paper in the ream, and in a cool place. It is more

pliable and easily handled when kept flat. Rub it down gently with chemically pure absorbent cotton, to remove all impurities, and float two minutes. Should the paper be very dry and curl up, cut two strips of back-board eighteen inches long and one inch wide. Place across the sheet on the bath one on each side, and let them remain for a few seconds until the paper adheres to the bath. Remove by means of a small tack driven through the centre of the strip, point upward. After removing any air-bubbles there may be, with a cotton swab, let the sheet float one minute and a half longer, and then draw it across a glass rod slowly but without stopping. Suspend the sheet from a cord stretched near the silvering table, and proceed with the next one. When you have three sheets on the cord, take off the first one and place it between chemically pure blotters, and rub it down thoroughly. By taking the paper down and blotting it after the third sheet, it gives each sheet about five minutes time to dry, sufficiently to retain all necessary silver, while it takes all surplus solution off and thus facilitates perfect drying. The sensitized paper should remain between the blotters until through silvering, when it is dried by the heat of a stove. If a large establishment, with two printers, one man should dry and fume the first ten or fifteen sheets of paper while the other finishes silvering.

2. The paper should be fumed thirty minutes, and hung so that each sheet gets its share of the fumes of ammonia. The fuming box should be kept in the silvering room, if not too small, in order to be of the same temperature. The thermometer should register from 60° to 70° Fahrenheit, in the printing and silvering room. If treated as above described, the paper will have a brilliancy inferior to none in use, if not superior to all. In fact, it will look so nice and rich that a printer, who has his heart in his work, will be overjoyed with it. It will print a rich purple with deep shadows. How much more a man likes to work when his paper is right, than when it has some fault, such as mouldy appearance, woolyness, foxy redness, etc. It will also tone much easier and quicker. After fuming the paper should be dried again, especially if the weather is

damp. It should be rolled upon a roller, which is first wrapped up in soft tissue-paper, each sheet separately to enable you to take them off as they come without disturbing the rest.

III.—PRINTING.

I. *Cutting the Paper.* This subject has been entirely covered by writers. There is nothing original that I can add. The following methods are most extensively used.

1. Fold the paper into halves lengthwise, then into thirds crosswise making six 4 x 4 pieces which folded again lengthwise will make twelve cabinets, which stretch in the width, or four panels and eight cabinets.

2. Folding the sheet into halves crosswise you will obtain two 11 x 14 pieces, which folded again will make four 8 x 10, these folded again will make eight boudoirs; when folded again sixteen cabinets will be obtained, *all stretching in the width*. If cards are wanted, each cabinet will make two cards when doubled, thus getting thirty-two cards out of a sheet, *all stretching up and down*.

3. Fold paper in length three times and fold each strip five times, thus getting fifteen cabinets *stretching up and down*.

4. Detach a strip off the sheet six and a half inches wide which doubled twice will make four cabinets or four panels. The remainder of the sheet will make eight cabinets or four cabinets and four panels. For cabinets fold the paper evenly, then turn it half around, and double turn again and double. This gives you eight cabinets. All the above pieces will stretch the same way. If you want to make panels and cabinets cut as follows: Place the end of the piece next to you, fold over so as to make one strip six and a half and the other seven and a half inches wide, now turn and fold as you did for cabinets.

All pieces of the last (No. 4) described method will *stretch alike in the width*. Photographers having German customers, as a general rule, cut their paper to stretch in the length as the Germans principally have round faces, while American faces are usually lacking in width. The sensitized paper cutter is very recommendable as it enables you to cut twenty sheets of paper in

less than ten minutes. Of course, we have to be careful in laying the paper on the negative to give the figure its proper position. You will save an hour's work in cutting out prints after printing.

II. To avoid bringing the burnisher into the printing-room the western galleries proceed as follows: a book is made of heavy printer's paper, say 11 x 14 in size. The pages are ruled length and crosswise, making about sixteen card openings which are regularly numbered from the negative number you begin the book with to its end. Before beginning to print the order, make a card-size book-print of each and every negative with the number of the negative and the number of the prints required thereof on the back of it. Then paste the "book-print" in its respective opening and write the number of prints required below. This will serve as a guide for the finisher, and aid you in finding duplicate orders. The prints should be either marked on their backs or on back of the frame. Any rejected prints should be sent back to be checked off. (Any strip of paper left over and which is otherwise useless ought to be used for book-prints.)

2. The negatives should be kept in a warm room or warmed before printing to keep the paper from cockling or printing blurred, because of lack of contact. Cut a cast-off piece of clothing into pads, or secure some strips of cloth from a tailor for padding. Cabinet frames, with cotton flannel on their backs, assure sufficient contact. When pads are used see that they are lying flat before closing the springs, to prevent breakage of negatives.

When two printers work together the one that changes should always examine the prints before removing the back in order to obtain uniform depths. With the above silvering process, and the sal soda toning bath, the prints should be carried but *little beyond the depths required when finished.*

3. Vignettes. The following are the most extensively used. First nail a strip of wood one inch wide and one-half an inch thick on each side of the frame, cut out of cardboard or ruined print any shape opening required, oval, pear-shaped, etc., cut in and bevel same, make the cuts about an inch

long and about an eighth of an inch apart, which will make a nice soft vignette for three-quarter figure cabinets or panels, boudoirs, etc., make the cuts two inches long and turned upwards. This will make a beautifully blending, full-out vignette.

The majority of galleries have the back-grounds tinted to make them look softer. The slight gray ground also is less sensitive to every little spot and mark. This is principally done with cotton laid on the face, and the print is exposed to a soft light in a frame with a very clean glass. The frame is kept in motion to prevent the cotton from printing sharp. Two frames may be kept running with two prints in each, thus doing the whole business in a very short time. The prints look much richer with a light gray ground than with a white one. Care must be taken not to get the grounds too dark. The Scott vignetter is very handy. All you have to do is to lay your cardboard in its proper position and clasp the spring down. It also saves tissue paper, as it does not need to be pasted down. The vignetter can be raised and lowered by means of a small thumb-screw on each side. A half inch pine block, the size of the width of the frame used, bevelled in on one side (five inches), slipped between frame and vignetter, and fastened by thumb-screws on vignetter in any required position, makes a fine "cut-off" for ladies busts. A cardboard vignetter is used too with the block, as the latter only cuts off the bust. The block works neater, and is easier handled than cotton. The Weymouth vignette papers are the simplest, easiest, and cheapest of all, as well as excellent. Sensitized paper is generally used for blocking out backgrounds in copies, but yellow envelope paper is better, as the outlines can be traced through this paper while it is opaque enough to block out what is necessary. Some galleries use "Opaque" to block out the outlines. This saves the printer a good deal of time, as any kind of heavy paper will do to block out the rest of the ground, provided it is dense enough to be used.

IV.—WASHING PRINTS.

1. Washing-tanks are easily procured as follows: Get a set of boxes; all sizes re-

quired have one-inch wood. Buy some good white oil-cloth to line them with. Cut it large enough to cover the whole inside and to lap over the top an inch. Make some thick starch or glue; paste or glue the whole inside thoroughly, using plenty of material. Rub the cloth down thoroughly to prevent it from puffing up. The corners are then folded properly, and the cloth is tacked to the outer edge of the tray. The above tray can be used for toning and silvering (the silvering tray is flat, of course), and is perfectly safe if kept clean.

2. Washing prints. Place prints into the water, face down, one at a time. They are then turned face up, and kept in constant motion to prevent the chloride from settling to the face of the prints. After a few minutes change the prints into another water, while the first water is kept in a barrel, the chloride being settled with salt or sulphuret of potassium. When sulphuret is used, the hypo (developer), etc., can be saved in the same barrel, which is done in a great many galleries.

Into the third water, pour an ounce of commercial acetic acid to acidify the prints. Allow them to turn cherry red, keeping them well in motion to prevent them from acidifying uneven, which would result in uneven tones. Wash them twice more, then place them in a tank of *warm water*. This is done to avoid chilling the toning-bath every time you change prints. If this water is warm enough, it will keep the toning-bath in the same temperature (lukewarm). Get another tank, with water, to which add a small handful of salt; in this tank the prints are placed after toning. The salt prevents the prints from toning any further, and also guards against blisters in the hypo.

V.—TONING-BATH, ETC.

1. Stock solution. Take a quart bottle, in which you keep a thoroughly saturated solution of sal soda as stock solution. Place two ounces of this stock solution in an eight-ounce bottle, and fill with water.

2. Take a half-pound bottle, in which you dissolve 15 grains of chloride of gold in 15 ounces of water.

If you wish to make your own gold, take a \$2.50 gold piece, place it in a tumbler with

a half-ounce of muriatic acid, C. P., and one-fourth of an ounce of nitric acid, C. P.; lay a piece of glass over the tumbler, and stand same in the sun or open air. It will thus dissolve in a short time; when dissolved, pour it into a quart bottle, rinse out the tumbler, and pour that also into the bottle; fill the bottle one-half with water, then neutralize this with bicarbonate of soda, adding little at a time, and shake up; when neutral, fill the bottle up with water, then add two drops of nitric acid to the gold solution.

3. Toning-bath. Take about a half-gallon of lukewarm water, add a small teaspoonful of salt and two ounces of gold, then test it; the litmus paper should turn red; to this add enough sal soda to turn the same piece of litmus paper blue again; very little is required—two teaspoonfuls will, as a general rule, suffice. Be sure and measure everything, especially the sal soda, because, if too much is used, the prints will not tone, but bleach.

With this toning-bath you can get any desired tone with very little effort. The prints will tone in about twelve minutes. The prints should be toned blue on surface, as they will go back a little in the hypo; by doing so, you will get as rich a tone as can be produced by any bath in use. The vignettes are toned separate to secure uniform tones in them. The large prints are always toned first, to keep them safe from tearing and breaking the albumen surface by too much handling.

The bicarbonate bath, if handled the same way as the sal soda, is a very good bath, also. The tones should be about the same way.

Both baths can be used over, but are generally made new every day, the gold being pretty well used up by the last batch of prints.

Waste toning-baths should be kept in a large crock, throwing the gold down with bicarbonate of soda or protosulphate of iron.

VI.—HYPOSULPHITE OF SODA

should be bought by the keg, kept far away from other articles as possible, to prevent stains. All washing and toning-trays should be washed and removed before touching the

hypo. Mix the hypo in a large crock, using one pint of soda to two and a half gallons of water, which should be a little warm—not too warm, though, as warm hypo will bleach prints too much. By keeping the bath in the crock after using, it can be used twice without any risk. After fixing prints, place them in a salt solution for five minutes, to guard against blisters. I have never been troubled with blisters with the above baths, but it is better to be sure, therefore I have always continued to use the salt bath. Galleries that have no stationary zinc or asphaltum-lined washing tanks, should get a box larger than the other trays, line it with zinc or asphaltum, and have a false perforated bottom to it. A hose should be attached to this tank under the false bottom, and the prints should be washed in running water all night, the water running slow. The large prints are generally washed separate and under the tap.

VII.—MOUNTING, ETC.

Take corn-starch, or prepared corn—as it is cleaner and purer—and make it moderately stiff. The prints are generally rubbed down with blotters, but manilla or wrapping paper is better, there being no lint in it to stick to the prints. After rubbing down, they should be placed on manilla paper, one layer on the other, to keep the necessary moisture in them. When dry enough, lubricate with castile soap and alcohol; for dark mounts, dry soap is generally used to prevent the color from coming through the prints. Large prints, if not burnished, should be tacked to a door to dry; they will dry out more brilliant than when laid flat. Burnishing not being in my line, I shall have but little to say on the subject; but will say, that when prints are run through from a different corner every time and slowly, without stopping, less heat is required and less risk is incurred.

A “YOUNG PHOTOGRAPHER,” who says he is “preparing for the field,” should not forget that in packing bottles in cases for transporting, India-rubber bands slipped over the bottles will prevent breakage, and save considerable.

PHOTO. FACTS AND FANCIES.

THE REPRODUCTION OF DISTANT TERRESTRIAL OBJECTS.—A correspondent of one of our scientific journals calls attention to the fact that although we can reproduce, by means of the photographic camera, objects which, like the moon, the planets, and the stars, are distant millions of miles, and this by simply using a photographic camera fixed to an astronomical glass, we have not yet succeeded in obtaining, by means of the telescope, the reproduction of terrestrial objects only a few thousand yards distant. Has anyone ever tried? We have never heard that such an experiment has been made, and there is no doubt that the thing is possible. The author of this remark is desirous of making use of his terrestrial telescope furnished with the photographic appliance to obtain prints of ships which cast anchor at about half a mile from the coast where his house is situated.

THE QUESTION OF THE UNIFORMITY OF WEIGHTS AND MEASURES BEFORE THE LONDON PHOTOGRAPHIC SOCIETY.—At the last meeting of this Society, Mr. Davis read a paper on the uniform system of weights and measures. The author emits the curious idea of taking the English grain as a measure of unity, and to make it the basis of a system of decimal weights and measures after the manner of the French weights and measures. But as scientists of all countries, without exception, have generally adopted the French decimal system and the centigrade thermometer, what is the use of attempting to introduce a system, entirely similar, but with a different basis? Since we have mentioned the *grain* let us add that for some time back the Americans have made use, in their books and journals, of an abbreviation of the French word “gramme,” which they write “gram.” Now, since ten years, we have noted numerous cases in which serious and even dangerous errors have resulted by the word gram having been printed grain.

THE REJLANDER PRINTS.—GRADUAL DETERIORATION OF SILVER PRINTS.—It is said that the humorous prints of the late Rejlander, the skilful painter and photog-

rapher, lost too soon to art, will in a short time cease to exist, unless they can be reproduced. With the aid of Mr. Cosmos Enner, and Mr. A. H. Wall, the editor of the *Photographic News*, is taking steps to bring together the principal productions in order to reproduce and publish them.

For over twenty years we have given much attention to the fading of silver prints, and after a great number of observations we have reached the conclusion that the assertions made in this connection are greatly exaggerated. One thing seems certain, it is that well-made positive prints, which have been exposed to diffused light in a well-lighted room, for more than *twenty years*, have suffered no changes, and are to-day as perfect in every respect as they were on the day they were made. Positives confined, such as card pictures in albums, which are kept from the light, have, in many cases, become yellow in the same lapse of time; but even here it cannot be said that the image has become so weak as to fear its entire disappearance.*—DR. PHIPSON.

SINGULAR PROPERTY OF STRONGLY FOGGED PLATES.—An amateur, M. Rate-lade, writes as follows to the editor of the *Progrès Photographique*.

I take the liberty of communicating to you a fact which perhaps may be known to some, but of which I have seen no mention in any photographic books or journals.

Having exposed some gelatino-bromide plates for several minutes to daylight—in the shade—I conceived the idea of utilizing them without having recourse to the long and tedious manipulations to remove the fog; exposed by contact in the frame under a *negative* for thirty seconds, to sunlight, developed in the ordinary way, these plates gave very good *negatives*. This fact may be made useful in utilizing fogged plates, making two impressions necessarily to obtain the desired result.

The editor of the *Progrès Photographique*, does not understand this phenomenon, which

seems to him as strange as inexplicable. In fact, when we reflect that a gelatine plate, exposed to a weak light for a fraction of a second, is fogged to that degree as to render any image invisible, it is difficult to understand that the fog produced by an exposure a *thousand times* longer in full light, should give a *very good* print. Remark also that it cannot be admitted that the excess of exposure removes the fog and restores to the plate its primitive qualities, inasmuch as in this case the plate exposed under a negative would give a positive.

We submit this difficult question to the investigation of scientists, with the conviction that the problem will not be easily solved.

PRACTICAL POINTS FROM THE STUDIOS.

DEVELOPMENT WITH PYROGALLIC ACID AND ALKALINE CARBONATES.—Recently the use of sulphite of ammonia has been recommended instead of sulphite of soda for developing with pyrogallie acid and with carbonates of soda or potash. I have tried it, and I have obtained excellent results, especially as regards the color of the negative and the intensity of the image. I would not speak, however, of this experiment, which many others have made before me, were it not that I wish to call your attention to the fact that, in using sulphite of ammonia to which carbonate of soda or of potash has been added, we are simply making a development with carbonate of ammonia. In fact, the sulphite of ammonia being always in great excess in the developer when the carbonate of soda or potash is added to it, is partly converted into sulphite of soda or potash, and into carbonate of ammonia, the odor of which is very strongly apparent. It is, therefore, this last product that causes the development, as the soda or potash is gradually added. I have been particularly successful with this mode of operation when developing plates in two successive solutions of pyrogallie acid and of carbonate. One more word, not on development, but on the use, in the manufacture of plates, of a body which might be supposed incompatible with emulsions. I

* If there are prints that have lasted twenty years, my dear colleague, how many have disappeared? It is better to make sure of permanence and to advise the use of processes more certain to be lasting.—LEON VIDAL.

allude to vaseline with which the plates may be rubbed with advantage before being coated with the emulsion. The coating of gelatine spreads readily on the surface of the glass slightly greased with the vaseline, and afterwards rubbed. The adherence seems perfect, and it seemed to me, after a first experiment, that no spots or depressions were formed when the film was setting. I cannot assert positively that this result arises from the use of this mineral grease, but I am rather inclined to believe that it does.

It is possible that this body may be used in the manufacture of papers or pellicles destined to receive an emulsion coating. In any event, this fact seemed curious enough to me to be mentioned, admitting even that it had no practical consequences.—M. E. ANDRA, in *Bulletin de la Société Française de la Photographie*.

NEW YORK, March 10, 1886.

DEAR SIR: The PHILADELPHIA PHOTOGRAPHER at hand, and your notice of the "Dissolver" is appreciated—thanks. The PHOTOGRAPHER is handsomely got up, and we hope the change of its base to New York will prove a success. That photo. of "The South," is a little gem.

On page 144 you have an item about making "impromptu slides" on ground-glass plates—but *Gelatine Plates* are far better in every way—Try them.

Yours,

THOS. H. McALLISTER.

[Mr. McAllister accompanied his letter by very perfect sheets of thin gelatine—the best thing for impromptu slides.—Ed.]

THE HUMOR OF IT.

It is fashionable now when you buy a new umbrella to take it to the photographer and have it photographed. You are tolerably sure not to lose the photograph.—*Somerville Journal*.

THIS is the season of the year when amateur photographers perpetrate atrocities on unoffending landscapes.—*Baltimore American*.

WHEN the vans with the Salon pictures draw up at the Palace de l'Industrie a crowd

of one-centime wits assembles. When a cattle-piece is carried in, the Champs Elysees is full of bellowing; if dogs are on the canvas a violent barking is heard; a religious picture is greeted with hypocritical fervor, and a nude evokes a chorus of scandalized ohs! and ahs!

COMMITTEE AT ST. LOUIS BE CAUTIONED.

I am afraid this amateur photographing craze will have to be stopped. I met a man the other day, and the conversation by his dexterous management turned to the subject.

"Do you know —?" he asked, naming one of the amateur photographers.

"I do, very well."

"I wish you'd go up and see him."

"What for?"

"Well, he was over at Saucelito the other day, and I saw him taking a picture of a very pretty bit of view. I want to get it."

"Yes?"

"Yes," he went on, as a fellow always does, and gave himself away, "I was over there with a friend, and——," he hesitated.

"Was she very pretty?"

"I knew I'd make a mess of it. I say, don't put it in the paper. The fact is that I took Miss —, you know we are to be married very soon? We were walking very happily. I won't deny it, we were rather tenderly inclined. — these photographers. You can't go anywhere but you find a lens on you. Well, we were walking along, when I happened to turn, and there was a cursed photographer, and he'd just taken a picture. I want you to go up and see him, and find out if—well—if—there's anything in that plate except the landscape." —*S. F. Chronicle*.

PATERFAMILIAS now buys packages of dry plates for his boy's Fourth of July overtures, instead of packs of fire-crackers. They can be fired with less noise.

A CORRESPONDENT says that a common feature of travelling shows in Japan is a realistic view of Jigokee, or the Buddhist hell. The figures represented move by machinery, and include a selection of as terrifying devils as ever were depicted in a temple kakemono. One well developed devil is weighing new arrivals at the gates

in a balance, and directs them to the right or left—to heaven or hell—according as they tip the scale or are found wanting. The tortures inflicted on the wicked receive ample attention. The braying in a mortar, pounding with an iron mace (spikes), sawing in two, and dragging out of the entrails are all on view. The most business-like earnestness is displayed by the various figures, one green devil being specially noticeable.

Such scenes as this may be seen in an incendiary New York "club" gallery within sight our office window. To endure having a picture there would surely be equivalent in torment to a torrid tour through "Jigokee."

A SPIDER, as shown by an estimate by means of actually weighing it and then confining in a cage, ate four times its weight for breakfast, nearly nine times its weight for dinner, thirteen times its weight for supper, finishing up with an ounce, and at 8 o'clock P. M., when he was released, ran off in search of food. At this rate a man weighing 160 pounds would require the whole of a fat steer for breakfast, the dose repeated with the addition of a half-dozen well-fattened sheep for dinner, and two bullocks, eight sheep, and four hogs for supper, and then, as a lunch before going to his club banquet, he would indulge in about four barrels of fresh fish.—*Christian Union*.

And yet, take a spider as he runs, he is not half such a gourmand as a would-be artist with his first camera. He can take in a square of the heavens in one single immortal gorge.

A TERRIBLE MOMENT.—"Great Scott," says a convicted pickpocket, as he struggled to get loose, "you are not going to take my photograph, I hope?"

"Yes, for the Rogues' Gallery."

"Oh," he exclaimed, with a look of intense relief, "go ahead then; I was afraid you were going to make a woodcut of it for the *New York World*."

"CAN you conceive," said the professor, "an eternal vacuum, a portion of space unoccupied, an empty void, into which nothing ever enters, from which nothing

ever can come, which maintains inviolate and forever its own eternal emptiness?"

"I can," replied the student, "I have a whole stack of fogged dry plates."

THE WORLD'S PHOTOGRAPHY FOCUSSED.

GLASGOW PHOTOGRAPHIC ASSOCIATION.—The Secretary read a paper on "Removal of Silver Stains from Gelatine Negatives." This consists in removing the varnish and applying the following:

A. Sulphocyanide of ammonia .	$\frac{1}{2}$ drachm.
Water	1 ounce.
B. Nitric acid	$\frac{1}{2}$ drachm.
Water	1 ounce.

A freshly mixed solution being used for each negative. This is followed, after washing, by the application of a saturated solution of chrome alum.

Mr. D. McSkimming gave an exhibition of transparencies, comprising various subjects—microscopic, landscape, figure, etc. The lantern was skilfully managed, a beautiful, clear, steady light being maintained throughout.

The Council were instructed to take steps to arrange about an outdoor meeting for May, and the President having intimated that this would be the last meeting this session, Mr. Urie proposed a vote of thanks to him for the way he had conducted the meetings during the session, and the meeting adjourned.

THE use of a small quantity of hyposulphite of soda, either in the developer or before as an accelerator, when the iron developer is used, has been recommended as giving details which could not otherwise be obtained; but Herr Gädicke has made many experiments in this direction, and says that the use of the hypo simply gives a more rapid development, since the oxalate development without hypo is pushed far enough, the same result may be obtained, which proves that hypo does not accelerate the exposure, but it does the development.—*Revue Photographique*.

THE *Progrès Photographique* mentions a curious fact communicated by Mr. Braun, and which he had observed when obtaining

photographs of the National Foundry at Ruelle. Having remarked that the vibration produced in firing off large marine guns of seventy and eighty tons was imparted to the plates, he conceived the idea of placing a frame containing a sensitive plate near the cannon and so allow it to remain there until after the discharge. This experiment was repeated three times at distance of one-half metre, one metre, and one and a half metres from the cannon, whose charge of powder varied from three to four hundred kilogrammes. When developed these plates were fogged as if they had been exposed to the light. Mr. Braun infers from this that sound, when violent, has an action analogous to that of heat and light on bromide of silver.

SODA AND POTASH DEVELOPER.—Prepare the three following solutions :

- | | |
|---------------------|----------------------------------|
| A. Water | 200 c.c. (6 fl. oz., 6 fl. dr.). |
| Pyrogallie acid | 15 gr. (4 drachms). |
| Sulphite of soda | 100 gr. (8 oz., 2 dr.). |
| B. Water | 200 c.c. (6 fl. oz., 6 fl. dr.). |
| Carbonate of potash | 50 gr. (1 oz., 5 dr.). |
| C. Water | 200 c.c. (6 fl. oz., 6 fl. dr.). |
| Carbonate of potash | 25 gr. (½ drachms). |

In using these solutions remark that 25 parts of potash are equivalent to 50 parts of soda, and that when 1 part of A. is mixed with 1 part of B. or C., adding 6 parts of water, we have a very strong developer, since it has been shown that the soda developer is from five to seven times more powerful than the oxalate to bring out the details of the parts that have been feebly lighted. The potash developer is equal to that made with soda.—DR. F. STOLZ, in *Le Progrès Photographique*.

COMMERCIAL IMPORTANCE OF PHOTOGRAPHY.—M. Gaston Tissandier, in *La Nature*, speaks of the enormous importance taken by photography in a purely commercial point of view.

Amateur photographers, says he, have become so numerous that their name is legion, so much so that we recall seeing this summer, at one of our watering places, operators with their cameras elbowing each other on the beach at the bathing hour. There are few tourists to-day who have not become photographers. It is not astonish-

ing, therefore, that the manufacture of photographic appliances and products should have advanced so rapidly. Statistics show that the gelatino-bromide plates manufactured in Europe during the course of a year are valued at 50 millions of francs. The paper which serves to make the prints is manufactured almost entirely by a single French house, "MM. Blanchet Freres et Kléber, at Rives," which makes annually fifty thousand reams of paper, which, coated with albumen and rendered sensitive by nitrate of silver, is worth at least 300 francs a ream. Its production, therefore, reaches the figure of 15 millions of francs. The other sensitive gelatino-bromide of silver papers, carbon tissue, etc., mount up to 5 millions, and if we add to this the chemical products and cabinet work we reach an annual total of 50 millions of francs, or nearly \$10,000,000.

PHOTO-TYPOGRAPHIC PRINTS.—Mr. F. Braun laid before the "Société Photographique du Sud-Ouest," in name of MM. Deroulide and Terpereau, of Bordeaux, some photo-typographic prints, and a printing block obtained by a process patented by these two gentlemen. In a few words we give the description of the process which has given such perfect results : with a glass positive a print in intaglio is made by means of a bichromatized gelatine paper, especially prepared for the purpose ; from this a relief is then made with a metal having some analogy with the Darcet metal, and this relief can be used as an ordinary printing block.

INSTRUMENT FOR OBTAINING PANORAMIC VIEWS.—This apparatus is composed of two planchets, one placed over the other. The upper part is to hold the camera ; the under part, much shorter, is fastened to the tripod ; the two planchets are joined at their extremity and in the axis of the objective by an adjusting screw by means of which a rotary motion may be given to the upper planchett. It is easy to understand that by this arrangement this planchett can make a half-turn of the horizon on the screw without ceasing to remain solid. Now, if the plane of the stop passes through the axis of this screw, the rotation of the planchett,

and consequently of the camera, will not affect the panoramic focus, and the successive negatives will match perfectly. The under planchett attached to the stand, being circular, in order to give free passage to the screw which fastens the camera, this part may be graduated, giving an easy starting point to commence exactly a second negative at the point at which ended the preceding one. For a camera 18 x 24 centimetres, 7 x 8½ inches, this double planchett weighs only 620 grammes (22 ounces).—Invented by M. Berenguier.—*Le Progrès Photographique*.

At the last meeting of the London Photographic Society, Mr. A. Cowan exhibited five gelatino-bromide transparencies, one developed with ordinary developer, and two each with sulphite and bisulphite of soda. All were precisely alike in appearance, but the development in the last was much slower.

Mr. J. Werge stated he had used an oxalate developer upon a plate which was then found not to have been exposed, but after well washing, he exposed the plate and a good negative resulted. The Chairman, Mr. Wm. England, stated that the same thing had happened to him, using ammonia-pyrogallie developer, and he found the plate after washing increased in sensitiveness.

At a late meeting of the London Camera Club, it was decided to offer the hospitalities of the club to all Indian, Colonial, and American amateurs who may be in England during the South Kensington Exhibition.

The next 200 slides to be sent to the New York Society of Amateurs, in exchange, were shown at the club early in May.

ENGLISH photographers seem to have a good deal of trouble to obtain a varnish that will last during long printing.

Mr. Bedford's plan of testing varnishes is to place a plate coated therewith against a sheet of blotting-paper wetted with nitrate of silver solution.

GEOLOGICAL photography was the subject of the leading paper read recently at the Liverpool Amateur Association. It was illustrated with slides and paper prints.

A LATE meeting of the Manchester Society was devoted entirely to the lantern. Mr. Cowan will have a sad story to tell them if he reaches home safely.

A COLLECTION of photographs of American arms has been compiled for the Sultan of Turkey by an officer attached to the Springfield armory. This collection is made at the Sultan's request, and the photographs include the exterior appearance and details of construction of the rifles and pistols of every prominent manufacturer in the country. A duplicate set of the forty large photographs will be kept at Washington.

SPEAKING of the photographs made of a flash of lightning by A. S. Barker, of this city, *Iron* (London) observes: "The popular impression as to the duration of the lightning flash is that it is practically instantaneous. From the experiments of Wheatstone and others with the rotating disk, the duration of the flashes measured would appear to vary from 0.001 to 0.0001 second. Others estimate the duration of the flash as even shorter than this. It is a significant fact that, in the photographs of Mr. Barker, the foliage shows unmistakable evidence of having perceptibly moved during the period of exposure, thus demonstrating that the flash was by no means instantaneous."

THE Hamburg Photographic Association is reviving discussion on the asphalt process.

An excursion has been arranged over the mountains between Silesia and Bohemia. It will undoubtedly yield rich results to the many cameras taken along.

PORTRAITS by gas and petroleum are now interesting our Berlin co-workers.

Phosphorescent photographic plates are also being adapted to various uses by a new system.

DR. SCHNAUSS's new ideas on development, and Herr Whiteley's method of lighting the sitter have been interesting the Viennese lately.

MR. J. LOWY recently exhibited to the Vienna Society, a large variety of portraits of one person, which were admirable and interesting studies.

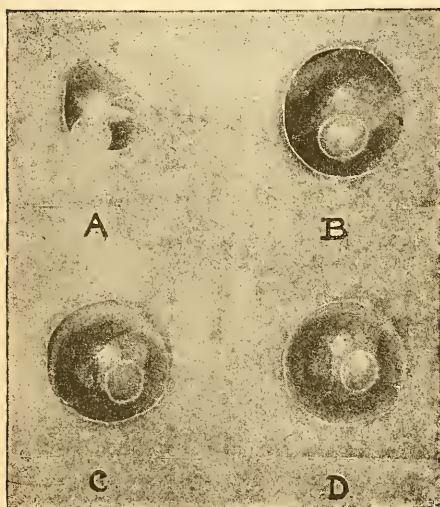
ON PHOTOGRAPHING THE RETINA OF THE LIVING HUMAN EYE.

BY WM. THOS. JACKMAN, M.R.C.S. ENG., AND
J. D. WEBSTER.

AFTER considerable practice, and numerous experiments, we have at last succeeded in obtaining a very fair photograph of the blind spot and a few of the larger blood-vessels of the living human retina.

Fig. 1 represents copies of four of our prints, and in each the blind spot—or end of

FIG. 1.

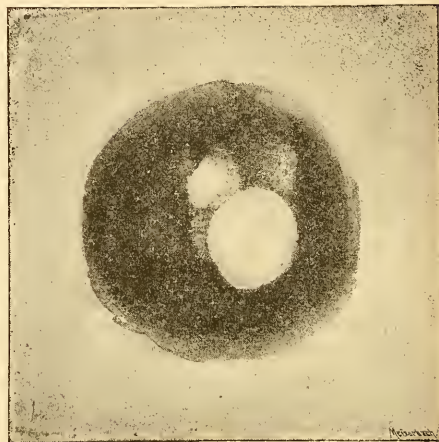


the nerve of sight—is seen as the smaller whitish disk with the whitish centre and a few bloodvessels, which are represented as dark lines emerging from the blind spot and coursing over the retina. The large white circle is the reflection from the cornea of the eye and not a part of the retina. To separate this spot from the blind spot on the ground glass of the camera requires a little manipulation of the relative positions of the camera, eye, and light. Fig. 2 is an enlarged copy of the print D, Fig. 1. The time of exposure was $2\frac{1}{2}$ minutes, and the plates used were extra sensitive dry gelatine plates.

We use a small camera $2\frac{1}{2}$ inches square fitted with a Ross 2-inch microscopic objective, and so made that it can be fixed by means of an elastic band upon the head of the person whose retina is about to be pho-

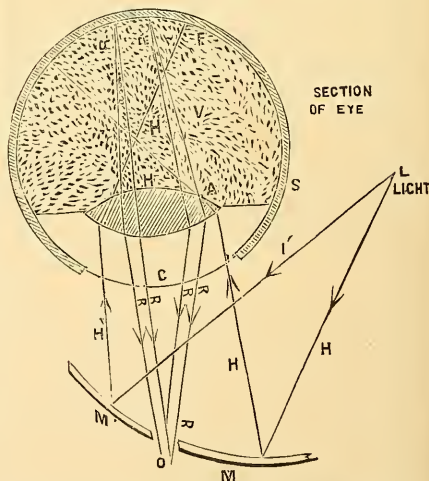
tographed, Fig. 3. In front of the lens an ophthalmoscopic mirror is fixed, the central

FIG. 2.



hole of which is 3 mm. in diameter. It must exactly coincide with the centre of the lens, and be placed $1\frac{1}{4}$ in. distant from the

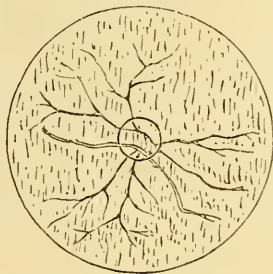
FIG. 3.



L, light; S, section of eye; C, cornea; V, vitreous body; A, lens; F, retina; H, H, rays from source of light to the mirror, reflected by this into eye through cornea, C, the lens, A, and vitreous, V, on to retina, F. R, R, rays reflected from the retina divergent until after passing through the dioptric system of the eye, and which emerge parallel, and so through the hole O, in the mirror, M.

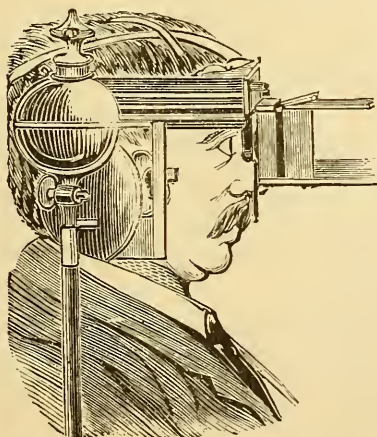
cornea. The mirror is placed at an angle of 45° , and the source of light (the albo-carbon burner) must be about on a level with the ear, and a few inches distant from it on the same side as that of the eye under observation. The pupil is dilated with a solution of homatropine (4 gr. to the ounce of water). The retina is illuminated by the rays from the light source reflected by means of the mirror referred to above. The best focus for the sensitized plate is a little nearer than the vest visual focus.

FIG. 4.



In order to keep the eye at rest during the exposure a small point is fixed which is seen reflected in the mirror, and was placed in our case on a level with the centre of the

FIG. 5.



light source, and between it and the ear. We used the ordinary ammonia and pyro developer, though considerably stronger than usual.

For those not conversant with the details of the retina, as seen through the ophthal-

moscopic mirror, we add a sketch of the blind spot and bloodvessels, Fig. 4; and in explanation of the course of the light rays after reflection through the dilated pupil, we append a diagrammatic drawing of the arrangement. Fig. 5.

The retina of an animal under chloroform has been successfully photographed, but we cannot find any record of a photograph of the living human retina having been obtained. For further information upon this subject the reader is referred to a paper read by M. Dor (Lyons), and commented upon by Dr. Noyes (New York), at the International Medical Congress, Copenhagen, 1884, and to Dr. Stein's new book *Das Licht*, vol. iii. p. 396, 1885; also to our article on this subject in the *Photographic News*, England, for May 7, 1886.

COGGESTALL, ESSEX, ENGLAND.

[Messrs. Jackman and Webster, with the generosity of true scientists, have sent us their paper, with the illustrations from T. Bolas, Esq., editor of the *Photographic News*, London. Also a very interesting photograph of the retina from one of their original negatives.—ED. P. P.]

PERTAINING TO THE



ALL parties who intend competing for the (\$100) one hundred dollar prize to be given by the P. A. of A., for best paper on photography, to be read at the coming St. Louis Convention, are requested to send their names or name of subject to the Secretary as soon as possible, that it may be arranged in the official programme.

Very truly yours,

H. McMICAHEL,

BUFFALO, N. Y., May 14, 1886.

Secretary.

DEAR SIR: We have devoted our attention this week to the interest of our customers and friends who desire to visit the National Photographer's Convention at St. Louis next month. We have arranged for special round-trip tickets, via the picturesque B. & O. & O. M. route, with the extra privilege of stopping off at any of the following cities: Baltimore, Washington, Harper's Ferry, Deer Park, and Cincinnati. Tickets good on any regular train from June 15th to July 3d. To St. Louis and return, as above, only \$23.75.

Those desiring tickets via Chicago, can have the same by paying \$6.25 extra.

All orders for these special tickets must be endorsed by us.

For further information address,

Yours truly,

BUCHANAN, SMEDLEY & BROMLEY.

PHILADELPHIA, May 12, 1886.

"DO YOU KNOW"

What a happy lot that of the Michigan photographer is?

In view of the fact that two burnishers have been offered for competition for the best photographs made by Michigan photographers, to be exhibited at the coming St. Louis Convention, June 22 to 25, and that they may both be captured by the same person, we considerably make this offer to such party to relieve him or her in his or her dilemma.

The probabilities are that the aforesaid him or her has a burnisher already, so that two more would be a surplus.

We will give to such party a 6-B or 4-A Suter lens (*price* \$78.00 *cash*), and take one or *both* of the surplus burnishers in exchange, as a relief to the unfortunate competitor. Now, isn't this consideration commendable? You know, of course, we don't do it to advertise the Suter lenses or ourselves.

Truly yours,

ALLEN BROS.

14 AND 16 EAST LARNED ST.,
DETROIT, MICH.

I BEG leave to inform you that the "Acme Manufacturing Co.," of Syracuse, will offer as a special prize, at the convention to be held in St. Louis, a 26-inch burnisher of their

manufacture, "for the largest and best exhibit of photographs by any exhibitor."

Yours, etc.,

W. V. RANGER,

Sec. and Treas.

AMATEURS IN NEW QUARTERS.

ON Friday, May 21st, the Society of Amateur Photographers of New York, moved into their handsome new quarters at 122 West 36th Street. A goodly number of members and their friends, including many ladies, turned out to the opening night. President Beach, in a brief address, welcomed them to the new rooms. He spoke of the vigor and growth of the Society, stating the cheering fact that it was entirely out of debt, and exhorted its members to earnest work and renewed effort for a still greater increase in the membership. Social meetings, he announced, will be held weekly in the rooms, and frequent exhibitions and lectures given.

After some routine business, the President introduced Mr. J. Wells Champney, the artist, who is an active member of the Society. Mr. Champney then erected his easel on the platform, and gave a most able and interesting "charcoal talk" on composition in photography. His rapid sketches became full of suggestions under his clever comment, and he stated many ideas that ought to set his hearers thinking and influence their summer's work. In concluding he invited the members of the Society to take pictures during the summer which would illustrate the principles he had briefly set forth, making slides from them, and promised to give a lantern lecture on the results in the fall.

After the "talk" a well-deserved vote of thanks was given to Mr. Champney. The audience then broke up and resolved itself into committees of inspection of the new rooms. On the same floor with the large meeting room, which was hung with fine photographs, many the work of members of the Society, there is a cosy club-room, with the nucleus of a library and all the photographic periodicals. On the floor above is a large dark-room, 9 x 20 feet, for the use of members, and where classes in development

and other manipulations will meet. There will also be some private dark-rooms. In addition there will be arrangements for printing, and probably a skylight, in the room which covers the rest of the floor. One entire side of this room will be built in with commodious lockers for the members of the Society. Great satisfaction was expressed with the Society's new home and the arrangement of the rooms, and it was hoped that it will take a new start and grow even more rapidly than it has done already. If energetic and capable officers and enthusiastic members can make it do so its successful future is assured.

A letter was read from the London Camera Club stating that 200 fine slides had been sent to the Society in furtherance of the scheme of international exchange of slides. It was announced that the prize of \$50 for the best drop-shutter had been awarded to Mr. Cyrus Prosch.

SOCIETY GOSSIP.

MINNEAPOLIS AMATEUR CLUB.—Mr. Wm. Regan tendered his resignation as Treasurer. Mr. Regan is one of the busiest men in the club, being always kept moving on our coming Exposition, of which he is one of the managers, and on half a dozen committees. Mr. Bishop Brayton was elected to fill the vacancy. No better man could be found, as Mr. Brayton is a practical book-keeper, and also one of the most particular and careful persons in the club, one who will fill his position as it should be filled.

Mr. Pasholt won the badge, his subject being Swartze's house, one of the first wrecked by the cyclone at St. Cloud, Minn. It is a well worked picture.

Many of the members now talk of excursions, and some are already fitting up to go on long trips, and some interesting subjects can soon be expected.

HYP0.

THE PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.—A stated meeting was held Wednesday evening, May 5, 1886, with Vice-President John G. Bullock in the chair.

The Secretary reported the receipt of communications from the Society of Amateur Photographers of New York, and the Boston Society of Amateur Photographers,

in regard to the proposed plan of the three societies uniting in one general exhibition each year.

The suggestion having met with the approval of the New York and Boston Societies, and they having appointed committees to carry out the plans in connection with the Photographic Society of Philadelphia, on motion of Mr. Browne, a committee, consisting of Mr. John G. Bullock, Charles R. Pancoast, and Robert S. Redfield, was appointed, with full power to act, to represent this Society in arranging and carrying out such a plan.

The Secretary also reported the receipt of a pamphlet by Mr. Frederick E. Ives, entitled "Isochromatic Photography with Chlorophyll," which was presented to the Society by the author. A vote of thanks was tendered to Mr. Ives for the donation.

The Committee on Membership reported the election as active members of Messrs. E. F. C. Davis and R. Wistar Harvey.

The Excursion Committee submitted a plan for an excursion to Virginia to occupy about one week's time, visiting the Natural Bridge, Allegheny Springs, and such other points of photographic interest as might hereafter be decided upon. A plan was also proposed for a single day trip to New York harbor. Members wishing to take part in either or both of the proposed trips were requested so to notify the Excursion Committee.

The paper of the evening was read by Mr. Charles R. Pancoast, whose subject was "A Convenient and Inexpensive Apparatus for Making Lantern Slides."

Mr. Redfield asked whether it was necessary to shut out the light from the space between the lens and the negative in making slides.

Mr. Pancoast and others thought it better to do so, as the diffused light which otherwise passed through the lens, to some extent affected the brilliancy and clearness of the slide.

Mr. Wood stated that in making local reduction of over-intensity in a negative, or in removing light streaks from defective plate holders, or other cause, he had found that ordinary India rubber, as used for erasing pencil marks, acted very quickly

and effectively. By cutting an aperture in a piece of paper and laying it over the negative, portions of the same of any size or shape can readily and quickly be reduced so as to soften high lights or intensify shadows in the print as may be required.

Mr. Galloway C. Morris thought this practically a modification of the plan proposed by him some time ago for local reduction by use of fine emery powder or other similar substances. India rubber prepared for erasing purposes contained diatomaceous earth which supplied the grit necessary for reducing the gelatine film.

Mr. Redfield showed two negatives which had been affected in a peculiar manner in the fixing bath. On portions of the plate the bromide of silver, instead of dissolving out in the usual manner, remained in streaks and blotches, which dissolved very slowly, and when the whole plate was practically clear, these blotches in the film, apparently thicker than the other portions, remained quite visible by reflected light, and to some extent by transmitted light. Four other plates from two other emulsions developed and fixed the same evening in the same solutions were entirely free from the trouble. The fixing bath was a saturated solution of hyposulphite of soda diluted with an equal bulk of water. Before fixing, all the plates had been passed through a bath of alum and sulphuric acid, and washed the usual time between the two baths. The alum bath was an old one, which had been in use for several months.

Mr. Redfield mentioned that he had once before had a similar experience with a single plate, from a lot which were of most excellent quality.

As an explanation of the trouble, it was suggested that after the alum bath the plates had not been sufficiently washed to remove the alum, so that sulphur from the fixing bath was precipitated in the film. It was also thought that the old alum bath may have acted on the film in such a way as to interfere with the action of the fixing bath in dissolving the bromide of silver.

Mr. Browne showed a print, which had been loaned him by a friend, from a negative made by Major Wallace F. Randolph, Fifth Artillery U. S. A. The print repre-

sented the discharge of the new dynamite gun, with which experiments are being made at Fort Hamilton, New York. The exposure was made with an improved form of shutter, devised by Major Randolph; and, though taken in a direction at right angles with the line of fire, the projectile was visible. Its initial velocity was estimated at 900 to 1000 feet per second, and its actual size was said to be 3 or 4 feet long. Adjourned.

ROBERT S. REDFIELD,
Secretary.

A CONVENIENT AND INEXPENSIVE APPARATUS FOR MAKING LANTERN SLIDES.*

BY C. R. PANCOAST.

MUCH has been said of late concerning the various processes for making lantern slides, while comparatively little attention has been given to the apparatus necessary for the work. Many, no doubt, think that cumbersome and expensive arrangements are indispensable, and are deterred from indulging in this most fascinating of all photographic productions by the thought of a costly outfit. Of course, a well-arranged and constructed copying camera is a valuable adjunct to any outfit. For those who do not possess such an instrument, and are desirous of experimenting, I will endeavor to describe a thoroughly practical and inexpensive appliance which any one of even moderate constructive ability can make in a few hours, and at an insignificant cost for material. It is premised that the experimenter has a good camera and lens, and for sake of convenience suppose that the former is for plates $6\frac{1}{2} \times 8\frac{1}{2}$ inches, and the latter of about 7-inch focus. For slide making, short-focussed lenses are preferable, on account of the greater compactness of the apparatus, although as far as the product goes, it is immaterial what sized cameras and lenses are used. For illustration, therefore, I have selected a size that is presumably a standard. Having, then, the camera and lens, the first step is to make the base board. This may be a pine board, two or three inches wider than the bed of the camera, and four or five

* Read before the Photographic Society of Philadelphia, May 5, 1886.

feet long, and sufficiently thick to be perfectly rigid; this should be planed perfectly smooth and true. Next prepare two strips for guides one-half inch square and three feet long, secure one of these on either side of the board, parallel to the edges, so as to form a track in which the camera may easily slide the entire length of the board. Now cut a slot three-eighths of an inch wide, in the centre of the base board running to within six inches of each end; this must be in a line with the screw hole in the base of the camera, and sufficiently large to allow the tripod screw to move freely the entire distance. This is intended to permit the camera to be clamped in position directly the proper focus is obtained. Next construct a square frame, of such size that when secured to the end of the base board its centre shall be in the axis of the lens on the camera. In the camera previously mentioned the distance from the centre of the lens to the base board is six inches, hence the frame should measure twelve inches square outside. This is to be screwed rigidly to the end of the base board perfectly square and perpendicular; especial care must be given to this, as in the event of any careless workmanship distorted slides will be the result. For greater compactness, this frame may be hinged so as to fold back on the base board, and, when wanted for use, held firmly in a perpendicular position by side braces.

Now make two strips thirteen inches long by one inch wide and one-half inch thick, having in one of the half-inch sides a groove its entire length one-eighth inch wide and three-sixteenths inch deep; these, one above and one below, form the negative carrier proper.

On the ends of these are fastened blocks three inches long by one inch wide and one-half inch thick, having in the one inch sides longitudinal grooves one-quarter inch wide and deep. On the outside perpendicular edges of the twelve-inch square frame are fastened guides one-quarter inch square, and twelve inches long, planed perfectly true and fitting neatly the one-quarter inch grooves in the three-inch blocks. When properly adjusted these blocks and their grooved connecting carrier

bars should slide evenly the whole distance on the guides on the square frame. It is recommended to rub both the grooves and the guides with powdered talc; this makes an excellent lubricant and is much more lasting than oil or grease. It must be remembered that the connecting carrier bars should have their grooved faces opposite, in order that the negative may slide in the grooves. Such a carrying frame as described will take any sized plate, either vertically or horizontally, from 8 x 10 down.

To place a negative in position, the carrier bars, just described, are raised or lowered until the plate will just fit easily in the grooves; it is then brought to a central position, as shown by the scale. In order to facilitate the quick adjustment, I would recommend the use of scales on both the horizontal bar and the uprights, these to be graduated in inches and quarters, and reading both ways from the centre mark. In this way the adjustment is quickly made, and when once fixed need not be altered, except for a larger or smaller plate. I was led into adopting this arrangement by frequently desiring to make slides from portions of negatives not absolutely central. By sliding the negative laterally or the carrying frame vertically a considerable range of motion is obtained. With the usual form of copying camera having "kits" or frames, such "picking out" of the subject is impossible. The apparatus now being complete, it is only necessary to put a negative in the carrying frame, place the camera in position and point the whole affair at a clear northern sky, or where this is impracticable to the light from a white reflector. To get the exact amount of subject in the slide, it is necessary to mark in pencil on the ground glass the form of the slide mat. When exposing, it is necessary to cover the space between the camera and carrying frame with a dark cloth in order to cut off any extraneous light, and allow only that passing through the plate to enter the lens. This style of copying table answers perfectly for making transparencies and enlargements, for the latter the only alteration necessary would be an extra length to the base board. Such an apparatus as I have described can be constructed by any carpenter for a small

sum, and is thoroughly practical in every way.

GIHON ON CRAYON PORTRAITS.

IN view of the present considerable increase of interest in crayon and colored portraits, we desire to call attention to a practical work on the subject by an experienced writer, photographer, and painter. John L. Gihon's *Photographic Colorist's Guide* has just been issued in a new edition. It has already won the place of a standard work, treating its subject with great ability in minute detail. Now brought up to the times, it is a valuable manual.

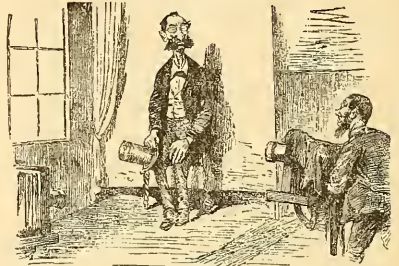
Its hundred pages give information about every method of finishing photographs. India ink work is first treated of, and, as in every following process, full description of implements and materials, and the manner of their use, is given, with many little hints, receipts, and last touches. In the chapters on crayon and pastel work directions are given from the preparation of the picture and the tools to the last finishing and fixing.

The subject of coloring is treated very fully, especially in water colors. Each of the different colors has its paragraph on its properties and use. The theory of color is succinctly stated. The colors valuable in representing varieties of flesh or drapery are named, with notice of the different mixed tints, and much instruction as to the rendering of forms and textures. Directions for making the crystal ivorytype, photo-enamel, and photo-chrome, are given. The remaining chapters of the book are devoted to miscellaneous hints, points on frames, and backgrounds, negative retouching, and the rudiments of perspective.

The work is full of little receipts and points only to be imparted by a man of long practical experience. It is almost indispensable to the photographer's library, if he goes into the class of work it treats of, and forms an invaluable companion and supplement to larger and less specialistic volumes.

The price of the new edition, which has just come out, is \$1.50. It can be secured of the publisher of *THE PHOTOGRAPHER*, or of all dealers. It is also included in the "*Big Offer*."

THE PHOTOGRAPHER AND THE ANARCHIST.



Chicago Photographer: I cannot take your picture in your present position.

Anarchist Bombist: What is it *your* business, if *I* am satisfied? *Off with my head!*

OUR PICTURE.

FEELING the stir of the season, which is now making the cherry-blossoms blow in the "Land of the Morning Calm," we fall into line and give our readers something Japanese. With the numbers of this issue, like flying flower-petals,

"Comes a train of little ladies,
From scholastic trammels free."
Each a bright Mikado maid is
Captured by photography.

The subjects of our pictures are not subjects of his philanthropic and Japanese majesty, but own allegiance to the great Western city which soon is to welcome the Photographers' Association of America, in the Convention of 1886. The Japanese silk-worm has spun, and the Japanese artist splashed his colors, and the decorative effectiveness of the pictures shows what may be made of their work in skilful hands. The combination of the Japanese costume and the American girl is artistically irresistible. Admiration for it is certainly not "an acquired taste."

The Japanese costume indeed has some strong artistic points. A dark fan makes a fine nimbus-background for the head, throwing it out, and the little fans in the hair cleverly disposed can be made to accent and contrast its mass. The gown is capable of giving some beautiful drapery effects. The soft, heavy, or crapy stuffs fall not in classic but in very characteristic folds, and the ex-

pansive sleeves and exaggerated sash can be disposed so effectively as to be valuable accessories. Mr. G. Cramer, of St. Louis, furnishes us with the negatives, of six different poses, in which these points are noticeable.

In two, the maidens are in gracefully angled (not angling) Yum-Yumesque attitudes, the raised arms behind the head holding the fan. Another is in a more conventional, yet saucy pose, looking back over her shoulder. Two others sit, in true Oriental style, upon their heels, on a little square table, in pleasing and coquettish compactness. The last has been entirely original, and lies like a kitten with head hanging down backward over the table and fan full-spread, decidedly an instantaneous position, but very pretty.

The whole six form a splendid series of studies in pose. We can, of course, only put one in each number. Mr. Cramer, who is well known as the head of the famous Cramer Dry Plate Works, in response to an inquiry as to details of his method, writes, "I can only say that they are from our everyday work, made on my blue-label ("Lightning") plates, and with my regular formula." They are certainly superb work.

The prints were made for us by Messrs. Roberts & Fellows, of Philadelphia, on N. P. A. Pensé paper, imported by Messrs. E. & H. T. Anthony & Co., of New York.

Before closing we would call attention to the mount of the picture, and the very appropriate and tasteful design which forms its frame.

At the last meeting of the London Geographical Society, Captain Bridge read an interesting description of his voyages in the Pacific Ocean, and of his visits in 1884 to the different islands of Oceanica. There were two things in this lecture that much interested us: First, the discourse of the distinguished traveller was illustrated by numerous photographs *made by the sailors of the ship*; then, during six months of this voyage, Captain Bridge was accompanied by a French traveller, M. Hubner, who gave a very interesting account of it in *La Revue des Deux-mondes*, of December 15, 1885, under the heading, "Six Weeks in Oceanica."

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

To P. G. S.: You will find Mr. Krauss's paper on "How to Print," in this issue, a very complete manual for printing practice. Read it carefully. Of course "blisters increase as the thermometer wakes up to its business." Observe the following well-known precautions:

Keep albumenized papers in a fairly dry and cool place.

Paper to be sensitized requires a certain amount of moisture; if very dry it does not take the silver readily, but dries in tears, and causes dark spots on the prints.

It is therefore necessary to place the paper to be sensitized between sheets of filter- or blotting-paper in a cool and moist place the night before use (a moist cellar is the most convenient place), when it will absorb sufficient moisture to be fit for floating without trouble.

High-surface papers are apt to blister, especially during warm weather; however, this can be easily and effectively prevented by the following simple process.

To every three gallons of water for the first washing after fixing, take about a handful of common cooking-salt, and there will never be even a trace of blisters. This weak solution does not affect the tone of the prints in the slightest degree.

GRADUATES, bottles, etc., may be nicely cleaned with broken egg-shells, and a little hot water—well shaken when taken

"COMMERCIAL PHOTOGRAPHER," upbraids us for not "giving more attention to our wants." Well, bless you, if your "wants" are peculiar, this column is open to your queries. We can only "guess" that in your copying business you have all sorts of things offered in all sorts of conditions, so we collate the following for your "attention."

To clean casts of plaster of Paris, bas-reliefs, etc., which are to be photographed, and which have stood for a time and have become dirty and dusty, several methods are employed, all of which, however, tend to injure the sharp corners of the cast, and occasion loss of time. Try the following plan:

Boil a quantity of starch into a thick paste, and with a soft brush spread it on the article to be cleansed. Then expose it in an airy place, and, when dry, the paste will peel off, together with all the dirt and dust, and the cast will appear as white as when new.

To remove iron moulds from marble, take butter of antimony, 1 ounce; oxalic acid, 1 ounce; dissolve them in 1 pint of water, add flour, and bring the composition to a proper consistency. Then lay it evenly on the stained part with a brush, and after it has remained for a few days wash it off, and repeat the process if the stain is not quite removed.

For removing spots on drapery, etc., take 120 oz. of white soap, dissolve in 180 oz. of hot water in a litre bottle, 30 oz. of ammonia added. The solution is then made up to three-fourths of the bottle by the addition of water, and the whole shaken up. A tea-spoonful of this mixture is placed in a bottle holding 250 oz., and mixed therein with some benzine, and afterward the bottle is filled with benzine under protracted shaking. The result is a gelatinous mass from which the benzine evaporates but slowly.

Rusted steel, it is said, can be cleansed by washing with a solution of half an ounce of cyanide of potassium in two ounces of water, and brushing with a paste made of half an ounce of cyanide of potassium, half an ounce of castile soap, an ounce of whiting, and water enough to make a paste.

To improve India ink for drawing, so that even the thickest lines will quickly dry, add one part of carbolic acid to eighty of the India ink. If, by mistake, too much has been added, it may be rectified by putting in more India ink. If the mixture is properly performed, the ink is as easy to draw with as it is without carbolic acid, but dries quickly, and may even be varnished without discharging.

The *Scientific American* states that plush goods and all articles dyed with aniline colors, faded from exposure to light, will look bright as ever after being sponged with chloroform. The commercial chloroform will answer the purpose very well and is less expensive than the purified.

Lightning Renovator.—Castile soap, 4 ounces; hot water, 1 quart. When the

soap is dissolved, add, water, 4 quarts; aquæ ammonia, 4 ounces; sulphuric ether, 1 ounce; glycerine, 1 ounce; alcohol, 1 ounce; mix. An excellent preparation for removing grease, etc.

Paper and leather may be rendered very pliable by soaking in a solution of 1 part acetate of sodium or potassium in 4 to 10 parts of water, and drying.

To remove grease-stains from pages of books, warm the parts and then press pieces of blotting-paper upon them, so as to absorb as much as possible. Have some clear oil of turpentine almost boiling, again warm the greased spot, and then with a soft clean brush apply the hot turpentine to both sides of the spotted part. By repeating this the grease will come out. Lastly, with another clean brush, dipped in rectified spirits of wine, go over the place, and the grease will no longer be seen, nor the paper marked.

[All these have been found useful in a large experience at photographing all sorts of things when the best effects are desirable.—ED. P. P.]

THE writer, though not a photographer, is very much interested in the advancement of the beautiful art of depicting nature. I am tempted to ask your supply manufacturers *why not prepare your paper negatives from a paper made transparent*, as some of our finest tracing papers are, before sensitizing it. The tedious treatment of manipulating it in order to render it transparent after the negative is made, must be very discouraging to the average operator.

2. Can you direct me how to fix India ink sketching on solars, so that the photographic coloring can be completely washed out leaving brilliant whites, with the least disturbance of the fibre of the paper?

C. C. COCHRAN.

SIoux CITY, IOWA.

[In answer to Mr. Cochran's first query, there has not been any transparent paper produced that gives satisfactory results.

As to his second query, we trust some of our skilled artists will answer it. It is a little vague to us.—ED. P. P.]

TO "NICE DARK-ROOM."

Bromide for cleansing and bleaching sponges has been recommended. Dissolve

bromine in 30 parts of water, place the sponges in this solution until they have acquired the desired color, then wash with water acidulated with HCl, and lastly, with clean water.

TO "BURNT FINGERS."

Alas! You should be more careful when using acids in your work.

Dr. Brame states that oil of peppermint gives immediate relief of the pain in burns if applied after immersing in water the parts burned.

The itching of urticaria and mosquito bites is said to be much alleviated by the application of menthol.

To make transparent glue for porcelain: Dissolve 75 gm. caoutchouc in small pieces, in 60 gm. of chloroform, add 15 gm. of mastic, and dissolve without heat.

TO "CLEANLINESS."

1. For removing iron mould a weak solution of zinc chloride is recommended as being better than oxalic acid; afterwards wash with cold water. Better throw away the old towels and get new ones.

2. Poudre Refulgente (polishing powder) is made thus: Mix 93 parts of magnesia with 7 parts red oxide of iron.

I HAVE some 18 x 22 solar prints, head and shoulders, on *light* backgrounds, finished on albumen paper. They are all satisfactory

except the backgrounds should be dark, to correspond with another print. Is there any convenient way to make the backgrounds dark?

E. G. F.

Answers.

"KEHAMA'S" answers to Anna M. Bank and Isaiah S., are very good, but I think if they will follow the inclosed directions they will succeed better.

IF A. M. B. will look on page 394, of December, 1885, PHILADELPHIA PHOTOGRAPHER, she will find Dr. Vogel's method of removing varnish from a negative.

It is, "lay the negative in 90° alcohol, in which one per cent. of acetate of potash has been dissolved." It works like a charm.

LET Isaiah S. proceed as follows to make his "Black Vignette."

Use a very dark background to make his negative. Vignette in the usual manner. Now make a blender of a stiff piece of paper cut in the shape of his head and shoulder vignette, but a little larger. Notch the blender all around, use a small wire for a handler. Put his print in a frame with a plain glass, face out, put the blender over the face, expose to the light, keep in constant motion. Any shade from a light gray to a jet black can be obtained.

Respectfully,

N. M. WILCOX.

BURNET, VT.

Editor's Table.

WHAT an indefatigable worker is Mr. H. McMICHAEL, the able Secretary of the P. A. of A. His management as Chief of Installation is what puts the solid money into the treasury, and he deserves recognition for his tact and skill in already filling up, at a good price, nearly all of the available space. All honor is due to those who are honestly and faithfully working to make the St. Louis Convention a success, but to Mr. McMICHAEL in particular belongs the credit of securing the "sinews of war."

If all the dealers would act as considerably as Messrs. BUCHANAN, SMEDLEY & BROMLEY,

the attendance at St. Louis would be largely increased from the East at least. See their announcement in the P. A. of A. column.

THE following was overheard at 54 East Tenth Street, New York, a few days ago:

PHILADELPHIA PHOTOGRAPHER reporter to Mr. G. GENNERT: "Mr. GENNERT do you intend to offer prizes for the best pictures shown at St. Louis on 'Eagle' Plates?"

Mr. GENNERT: "No. I hope the Convention will be a success, but I have concluded to offer *twelve* prizes with every dozen of 'Eagle' Plates, so that every user is sure to get a prize

instead of only a few, as will be the case at St. Louis. By *my* plan there will be hundreds of men made happy."

We presume there is no law against selling such prize packages.

THE VAN LOO GALLERY SOLD.—The following note from Mr. LEON VAN LOO, Cincinnati, O., is self-explanatory:

CINCINNATI, May 11, 1886.

Thursday I sold my studio to Mr. THEODORE C. MARCEAU, who for a year past has had a gallery here a few doors west of me on Fourth Street, and has made a great success of cabinets at five dollars per dozen. Will you pass through here on you road to the St. Louis Convention?

In a few days, when my personal affairs are settled and I return from my fishing trip to Lake Erie, I will attend to writing the long-promised article for your journal.

LEON VAN LOO.

THEATRE SCENES BY ELECTRIC LIGHT.—It has been quite the fashion here to make photographs of the brilliant scenes and wonderful groups which are introduced into the spectacular plays upon the stage, by means of electric light. "Evangeline," "Adonis," and Miss Wickham's tableaux of Tennyson's "Dream of Fair Women," have been very successfully done. Of the first two the PHOTO-GRAVURE COMPANY have published attractive souvenirs. Of the last Mr. R. GALLOWAY BELLINGER has favored us with some prints from his negatives which are marvellously excellent. Some of the groups in "Adonis" contain as many as thirty figures, and, except where the parties moved, they are all one could expect. Some of them, notably the "Studio" and the "Ballet," could hardly be better in any light. The Brush System was used, and the Cramer "Lightning" Plates. Such work as this will be in demand, and we hope at some future time to present an example with a paper which shall give further information.

We have received from Mr. D. K. CADY, the Secretary, a copy of the report of the proceedings of the meeting of the Merchants' Board of Trade, held in this city last February. This body, although holding secret sessions, is becoming more and more important to the interests of the whole craft.

MR. CHALES KRAUSS deserves more than passing praise for his excellent paper on "How to Print." He does not elaborate or fancify,

but in plain, simple language clearly tells how he conducts his daily work. His paper is praiseworthy, excellent, and most timely, for this is the season when the most printing-frames are exposed to the sun, and judging from the number of queries put to us on the subject lately, there is more than usual interest in printing just now. All the more praise to Mr. KRAUSS for his useful contribution to our knowledge.

MR. W. H. PARTRIDGE, of Boston, called upon us recently and left us a splendid cabinet portrait of a lovely young lady posed with her head against that of a noble Newfoundland dog. It is a rare good thing.

"AN ANXIOUS MOMENT" is the title of a cabinet portrait by Mr. S. H. PARSONS, St. Johns, N. B., representing a watchful pilot at the wheel. It is well done.

MESSRS. ZIMMERMAN BROS., St. Paul, Minn., have sent us a copy of their monstrous catalogue of photographic goods and materials. It is 9 x 12 inches in size, and contains one hundred and thirty-two pages. It is impossible to describe it. It is upon unusually fine white paper, amply illustrated, and supplied with a copious index. Frames and accessories are included. The whole make-up impresses one with the idea that it emanates from a prudent and prosperous house. It must be a great boon to purchasers.

MR. CHARLES W. HEARN, Portland, Me., advertises his branch establishment at Bethlehem, N. H., for sale. We know Bethlehem to be the most famous resort of all the towns of the White Mountain region, and it should be a capital place for a good photographer. Take a magic lantern along.

MR. W. H. CHADWICK, whose frequent presence in our office was a pleasure to us for some weeks, writes us from Montreal that his magnificent lantern and a thousand slides brought out from England were caught in the late Canadian flood and almost ruined. Fortunately, his plates exposed during his American tour were spared. At this writing our friend is crossing the sea, and probably spending some of the hours of his imprisonment aboard ship cleaning and remounting his flooded slides. We commiserate with him.

THE PHILADELPHIA PHOTOGRAPHER is a regular visitor from which I derive a great deal of

useful information. I also have your *Photographics*, which I find a most valuable book for reference.—T. M. CALLAHAN, Greenfield, Mo.

THE "Favorite" amateur outfits of SCOVILL MANUFACTURING Co. are announced and are very neat and shapely and good. Send for a circular of descriptions and prices.

MR. J. C. SOMERVILLE, St. Louis, presents our advertisement readers (and who is not of that number?) with a fine engraving of his new store at 111 North Broadway. There is plenty room there to hold the Convention, but it wouldn't be comfortable for Mr. SOMERVILLE. He will try to make all who call upon him comfortable, however, we are very sure. "The sample room" is a new and important feature in the new warehouse, and will be found a great convenience. Call, *sure*.

THE BLAIR CAMERA Co., Boston, issue an "Important to Know" circular, which all photographers intending to purchase apparatus should send for and read. This company make a line of apparatus different from others. No doubt they will make a fine display at St. Louis.

OUR "big offer," has proven to be a "big success," and there is "nothing like success." Four dollars for eight dollars' worth of books is a chance worth denying one's self for. Try it.

MR. GEORGE MURPHY, No. 250 Mercer Street, New York, is favored with a growing business, the result of careful personal attention to the wants of his patrons. He has been compelled to make important alterations and additions to his warehouse, and now has more room for the display of accessories and apparatus, as well as space for a large stock of other goods, especially cardboard, of which he sells abundantly. One of the greatest successes Mr. MURPHY has had of late has been in introducing Mr. MORENO's Universal Developer, whereby one hundred plates may be developed without a change or addition. This is a great deal to claim. This wonderful developer, the result of careful experiments by Mr. MORENO, is in daily use in his studio, giving the fine effects for which he is noted. From sixty to seventy plates (one day's work) have been developed, and the solutions poured into separate bottles, and used right along, with additions from unused developer as the strength is required. It can be used for any make of dry plate, thus making it invaluable to the operator. Mr. INGLIS assured us per-

sonally of his faith in it, and determination to adopt it in his demonstrations. With it an under-timed or overexposed plate can be controlled at once. Certainly it must come into popular use.

ITEMS OF NEWS.—MR. B. M. HARGER, an amateur photographer from Dubuque, Iowa, has sailed for a year's tour abroad. Mr. and Mrs. R. MAYNARD, Victoria, B. C., sailed for England the same day. We commend all to the good graces of kindred spirits in the old countries. Mr. ORVILLE ALLEN, of ALLEN BROS., Detroit, is in Switzerland grinding out Suter lenses. Mr. C. D. IRWIN, of Chicago, is at this writing sailing toward the port of New York, and will soon be in our office telling of his trip around the world. The PHILADELPHIA PHOTOGRAPHER met him several times *en route*.

FROM OUR READERS.—We have hundreds of testimonies as to our usefulness to our readers, and suppose it is not very modest to publish them, but we venture the following for the general good without fear, since they are over the names of men so well and favorably known in the craft.

Your magazine has never been so good.—Prof. GEORGE W. EDMONDSON, Norwalk, Ohio.

I think you have improved your journal immensely since you have taken the helm again in *propria persona*.—D. K. CADY, Secretary of the Merchants' Board of Trade, Cincinnati, Ohio.

I have had many a long walk with the PHILADELPHIA PHOTOGRAPHER during the last twenty years, and now, since it comes twice each month, it seems nearer to me, and better than ever before.—H. McMICHAEL, Secretary of the P. A. of A., Buffalo, N. Y.

PROF. C. PIAZZI SMYTH, the Astronomer Royal for Scotland, prints in the *Transactions of the Royal Society of Edinburgh*, the first part of what promises to be a splendid contribution to research in the micrometrical measurement of spectra. He details the results of the examination of the spectra of the three elementary gases—oxygen, hydrogen, and nitrogen, and of carbohydrogen and carbonic oxide—under very high dispersion. A number of new lines are discovered, and many old ones believed to be simple, shown double or triple. Some new facts are advanced which seem to show a striking periodicity in certain spectral lines. The book is accompanied by twenty-nine plates giving the lines contained in a forty-feet spectrum, and two larger plates, one giving fine colored charts of a

number of gaseous spectra, and the other the green carbonic-oxide lines as resolved in a two-hundred-and-twenty-feet spectrum.

PROF. SMYTH pays a compliment to the value of photography in his work, saying, "Exquisitely defined lines in the violet and ultraviolet regions are obtainable through the medium of photography. . . . No eye observations can be trusted for minute features and full effects." Photography will probably be brought in before long for everything, by those eminent scientists who have of late employed that method in their own special researches.

MR. CRAMER FETED.—The great American dry-plate manufacturer of St. Louis, Mr. GUSTAV CRAMER, reached the forty-eighth milestone in his journey through life on Thursday, May 20th, and celebrated it in the good old style. His splendid residence at Thirteenth and Utah Streets, St. Louis, lit up and decorated, was the scene of an all-evening reception, in which friends, fellow club-members, and employés joined to do him honor. Early in the evening the Arcadia Club, of which Mr. CRAMER is a member, called in a body to present their congratulations. The Birthday Club, which has for its object the celebration of the birthdays of its members, accompanied them and assisted in the festivities. They were received by the hostess, Mrs. CRAMER, and at nine o'clock were conducted to the dining-room, where a superb banquet awaited them. There they feasted in hearty enjoyment, while Mr. CRAMER, loaded with presents and congratulations, felt how many friends he had, and appreciated what a grand idea it was to have a couple of clubs specially organized for that purpose, to help give one's natal day due honor and glorification.

At ten o'clock the employés of the G. Cramer Dry-plate Works formed in procession at Concordia Hall and marched to his residence. They moved in this order: Office force, coats, packers, washers, shippers, pasters, cutters, and yard-men; in all seventy-two. All carried torches, and at the head of the procession a huge transparency, in imitation of the "ruby" lamp, shed non-actinic rays on the scene. Mr. CRAMER came out to review the parade when it reached his house, and was greeted by Mr. THEODORE FREY in a congratulatory speech, to which he made a happy response. The grounds being illuminated, the festivities were continued in the open air. The well-known hospitable vats of St. Louis bled freely, and the health of host and hostess was drank again and again, with a regularity, instantaneity, and intensity

only to be compared to the working of the Cramer plates. The evening closed with a brilliant display of fireworks.

SCOVILL MANUFACTURING Co. announce that their "New York Outfits" are "all the go" this season. Their stock of photo-tripods, cameras, etc., is now immense.

MR. SAMUEL C. PARTRIDGE, San Francisco, Cal., announces a superior quality of ferro-prussiate or blue-print paper. Any size can be sent by mail in packages for from thirty-five to ninety-five cents.

THE *Amateur Photographer* publishes in an extra number the results of its "Home Portraiture" competition of 1886. Twenty-one reproductions, by the Meisenbach process, of photographs exhibited are given, with descriptive letter-press. Brief reviews of the work of every competitor are given, and a table showing their materials and methods of work. Some of the pictures seem to have been exceedingly good, though the paper chosen for printing the Meisenbach plates on is unfortunately quite unfitted to give them their best effect. The whole number, however, is very interesting, and contains many points for the study of the amateur, and for the practical man as well.

WHAT could have induced the careful and gentlemanly editor of the London *Amateur Photographer* to make the attack he did a few weeks ago upon our well-meaning colleague of the *St. Louis Photographer*?

The editor of a magazine is supposed to be the best judge of what his readers need or like, and if mistakes are made he must suffer the consequences. All of us like "a little nonsense now and then."

If our confrère in London felt chafed over the fun of our confrère in St. Louis, was he justified in wounding a useful and amiable woman?

MR. H. STUBER, Louisville, Ky., has favored us with a number of his splendid cabinets, mounted on heavy, gilt-beveled cards. They have an elegant appearance. His black vignettes are the finest we have seen. His posing, lighting, and printing are all excellent.

OUR "big offer" has pleased so many good craftsmen that we continue it until after the Convention.

St. Louis, Ho!

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ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matters must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

MAKE OUT YOUR OWN BILL, and remit cash with your advertisements, or they will not be inserted.



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RETOUCHING BUREAU.—Under the direction of Mr. H. Harshman. None but skilled help employed. Quality of work guaranteed. Prices moderate. Send your negatives in wooden box with cover screwed on, and prepaid charges.

Address GAYTON A. DOUGLASS & Co.,
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FOR SALE ON ACCOUNT OF DEATH.—A gallery valued at \$3500. \$1800 cash down will buy it.

Address MRS. JOHN J. JOHNSON, 3d,
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NOVELETTE CAMERA.—We are now ready to furnish these in 8 x 10, 6½ x 8½, 5 x 8, and 4 x 5 sizes. They are lighter and more compact than the novel camera, using our patent improved dry-plate holder of same size as the Fairy Camera. They all have the patent spring-hook for holding the bed rigid when extended, and are finely finished. Price same as for the Novels.

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17 Union Square, New York.

TIME.—It is our intention that every order received in the morning's mail (when not to be put on stretchers) shall leave this establishment the same day or the following morning. If too late for the morning work, it is sent on the second day. Having our own engine and electric light, we are not at all dependent on the weather.

GEORGE H. ROCKWOOD,
Business Manager.

AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

OUR dark-room and laboratory are under the charge of Dr. John Nicol, photographic chemist, late of Edinburgh. None but purest chemicals used in our preparations. All the standard dry-plate developers kept in stock. Your patronage desired.

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No. 1.—INTERESTING TO LADIES.

Our lady readers can hardly fail to have their attention called this week to the latest combination of improvements in that most useful of all domestic implements, the "sewing machine."

As we understand it, a machine for family use should meet first of all these requirements: It should be simple in its mechanism; it should run easily; it should do a wide range of work; it should be as nearly noiseless as possible; it should be light, handsome, durable, and as cheap as is consistent with excellence throughout.

These conditions the "Light Running New Home" certainly meets. It has also several very important and useful attachments and "notions" of its own, which go far to make good its claim to popular favor.

The "New Home" specially recommends itself to purchasers on account of its superior mechanical construction, ease of management and reasonable price. Over half a million have been sold in the last three years, all of which are giving universal satisfaction.

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WANTED.—To hire by a responsible party, a photograph gallery, with privilege of buying.
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I have now added a new floor to my stock-house, which will be specially devoted to *accessories, camera-stands, camera-boxes, chairs, etc.* A call solicited. New lists on application.

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Having contracted for a special make of glass, the **SEED DRY-PLATE CO.** can now guarantee a *flat, even, and straight plate.* A full stock of this well-known brand kept at the *New York Depot by the Agent* **GEORGE MURPHY,**
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PORTRAIT ARTIST,

No. 102 N. TENTH STREET, PHILADELPHIA.
Photographs finished in crayon, India ink, water colors, and pastel, in all sizes, in the very best styles, and at moderate prices.

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Patent Improved Telescopic Folding Tripod, with automatic leg fastenings. Perfectly rigid, the legs being held in position firmly, and it is impossible for them to become unfastened until the spring that holds them in is pressed back. This spring also forms a washer for the tripod screw.

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591 Broadway, New York.

TO MY PATRONS.

I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced. Knowing their ability, as my former employés, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON.

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Have done a fine business at this studio ever since it was established, and sell out now because with other interests, I have no time to give proper personal attention to the same. To parties furnishing satisfactory reference favorable terms will be made. For descriptive circular. Address, *with stamp*,

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A good deal of paper is sold with merely the stamp in the corner. This may be good, and it may not, according to what paper is used by the parties who want to work it off by putting on a stamp that has a reputation.

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Negative boxes, almost new, 5 x 8, 8 x 10,
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Drying negative rack.....\$ 25
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By lady, as retoucher. Can assist at other branches. Terms reasonable. Address Miss N. E. Tanner, Box 258, Groton, N. Y.

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As operator or general assistant, by a young man of good habits, who has had over five year's experience, and can furnish the best of reference. Is thoroughly competent in all branches, honest, and industrious. Would run a good gallery on shares or salary. Address W. D. H., Box 707, Hartford, Conn.

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As general assistant or retoucher, by a young lady who understands printing, toning, mounting, and retouching. Distance no objection. Sample of work sent on request. Address G. M., Lock Box, 2116, Florence, Wis.

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Vio-Pensee, a most delicate violet tint, and
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Send ten cents for instructions and sample,
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Permanent Prints by the Platinum Process. Electric Light.

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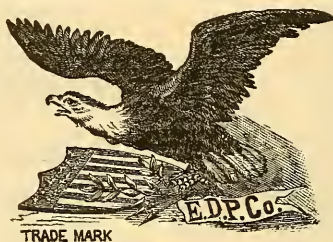
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beat the world. You ought to see them. If you are making *instantaneous* views you can save ten times their *value* in annoyance and *failures* the first dozen plates you expose. Easily adjusted, always in focus, light, cheap and durable. Size of ground glass 1 x 1 3-10 inches. Price, \$1.50, post-paid to any address in the United States.

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THE best artists and solar printers in the United States and in Europe use PLATINOTYPE PAPER for large and small pictures. This paper is manufactured for Willis & Clements' Platinotype Process, and is the *purest* and *most desirable* grade of paper made in the world for ink, crayon, or pastel. Samples free.

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OFFICE OF

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The great manufacturers of plain paper for albumenizers have their factory at Rives, France, where from distant mountain streams the purest water is brought.

But the great *albumenizers of this plain paper are at Dresden*, where the eggs of the *genuine and only Saxon hen* abound as plentifully as does water in Southern France. Years ago the *Importer of the Eagle Paper* received a great many complaints from his customers, and photographers all over came to the conclusion that *a water mark in the plain paper was a nuisance* that caused a great loss of prints, as the *the part of the sheet with the water mark was useless and waste*.

Desiring to gratify the demand of the photographers, save them from waste of paper, and prevent a *general strike, and the boycotting* of albumen paper on account of the water mark, the *Importer of the Eagle paper made a special trip to Europe*, for the purpose of inducing the great manufacturers of plain paper to *leave out all water marks*, but he only succeeded in having it reduced to the smallest size. He left out his own water mark, and has not had any in his paper since. Other parties thinking perhaps they knew more about prints and albumen paper than photographers do, *picked up the water mark he had dropped*, and try continually to impress upon photographers the fact, that water marks, instead of being a nuisance, are a blessing. *But it does not prevent photographers seeing how they could SAVE*, so they wisely preferred the cheapest.

In the *increased demand for our Eagle Paper*, we found our triumph, and we are not afraid of counterfeiting, for no one can imitate the good qualities possessed by the Eagle paper.

The *manufacturers of the Eagle Paper* announce that in order to retain the lead in albumen paper, they have to *keep moving*, and have just built a new factory, with all the improvements ingenuity and long experience can suggest. They were the first who brought out the *PENSÉE EXTRA BRILLIANT*, and now they offer, through the undersigned, their new *Rose Extra Brilliant*, which ought to be tried to be appreciated in its fine qualities.

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ASK FOR THE
BLUE LABEL.



TRY THEM
and you will continue to
USE THEM.

Pronounced the "Ne Plus Ultra" of Dry Plates.

UNSOLICITED TESTIMONIALS.

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DEAR SIR: I have been using some of your new plates, emulsion 1024, sensitometer 24. I think they are, without exception, the finest and best plates I ever used. They are not only very fine and delicate in their structure, but, when properly manipulated, result in a blooming negative, possessing all the desirable qualities that any artist could wish for. I could most appropriately christen them the "Ne Plus Ultra Dry Plate."

Yours truly, E. R. B. CLAFLIN.

MESSRS. HARRIS & KITTLE.

DETROIT, MICH., January 16, 1886.

GENTLEMEN: I am very much pleased with the Carbutt Plate; in fact, I call them the best plate *by far* that I tried so far. I find them especially useful for my theatrical subjects, as the quick emulsions are *absolutely instantaneous*.

Yours truly, A. B. TAYLOR.

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In Six Different Series and Forty Numbers, for
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These Lenses not only maintain their old-established reputation, but continue to lead in the field of progress.

Special attention is called to

Series No. II., Patent Antiplanatic, the newest conception in lenses. For Instantaneous Portraits, Large Heads, Full Figure Groups, Architecture, and Landscape. A marvel of illumination, depth, and rapidity. No Photographer or Amateur should purchase a lens before testing a Steinheil, Series No. II.

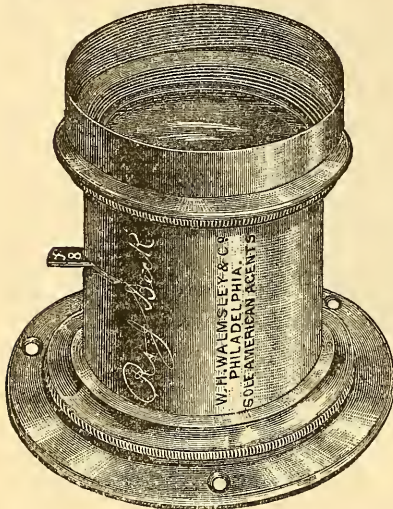
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BECK'S AUTOGRAPH RECTILINEAR LENSES.



THESE extraordinary lenses attracted universal attention at the late Buffalo Convention; the specimens of work in Portraiture, Groups, Landscapes, Instantaneous Views, etc., executed by them being of unequalled excellence. A life-sized head, made with the 8 x 10 lens of 13 inches focus, was considered by the experts present, as being far ahead of any similar performance ever seen. A full description of these and our other specialties will be found in our full catalogue. *Mailed Free.*

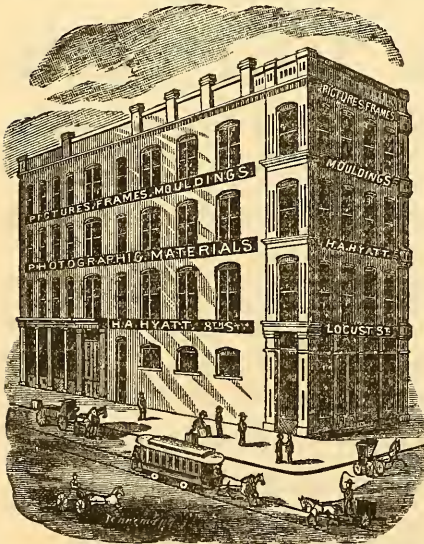
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Offers the Most Complete line of
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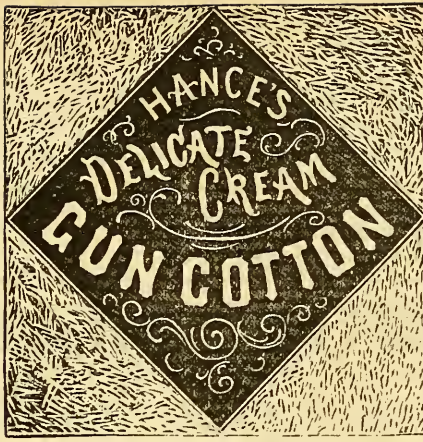
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AS A RETOUCHING VARNISH;

For making Ground Glass wherever needed; for Doors; for Skylight; for Camera Boxes, it has no equal. Good Ground Glass is hard to get; this Substitute never fails.

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35 grs.
1 OZ.

Nitrate of Silver Cryst.

Water,
Iodide of Silver, near Saturation,
Acid with Nitric Acid. C.P.

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ANDERSON'S
PORTRAIT
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Water.
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1 oz.
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24 oz.

Protosulphate of Iron.
Acetic Acid "No. 8."

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Scovill Manufacturing Company, Trade Agents.
FOR SALE BY ALL DEALERS.

Written Expressly for the "Photographic Times."

"TOURIST

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A series of highly interesting and instructive articles by the ACCOMPLISHED PHOTOGRAPHER
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ANDREW PRINGLE, of Craighleuch, Scotland,

WILL BE COMMENCED IN THE

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There will also be contributions from the pens of

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G. WATMOUGH WEBSTER, F.C.S.,

C. D. CHENEY, D.D.S.,

and from many others written solely for **THE TIMES**. All this will be given with the
Editorials, Society News, Correspondence, Notes and Queries,
and Commercial Intelligence.

A PARTIAL RECAPITULATION FOR MAY.

DRY PLATE MAKING FOR AMATEURS (a Series).....By DR. GEO. L. SINCLAIR.
ON FILTERS AND FILTERING.....By G. WATMOUGH WEBSTER, F.C.S.
STRAY THOUGHTS CONCERNING PHOTOGRAPHY.....By H. P. ROBINSON.
SUGGESTIONS.....By HENRY M. PARKHURST.
MOUNTING PHOTOGRAPHS.....By W. J. STILLMAN.
PECULIARITIES OF DRY PLATES.....By PROF. H. D. GARRISON.
FORMULAS FOR SOLAR PRINTING.....By JOHN H. HALL.
LIGHT AND SHADE.....By HUGH BREENER.
DUST (illustrated).....By WILLIAM HERBERT ROLLINS.
DEVELOPMENT.....By C. D. CHENEY, D.D.S.
PHOTO-MICROGRAPHY.....By ROMYN HITCHCOCK, F.R.M.S.
PHOTOGRAPHIC PRINTING PROCESSES.....By GREENWOOD PIM, M.A.
SOME PHOTOGRAPHIC ADVICE TO THE PRINCE OF WALES.....By LUKE SHARP.
STOPPING THE ACTION OF THE TONING BATH.....By C. L. CURTIS.
HOW TO SAVE THE GOLD BATH RESIDUE.....By J. F. M.
PHOTOGRAPHING THE GERM OF AN EGG DURING THE PROCESS OF INCUBATION,
By WM. E. SERVICE.
A MYSTERY.....By A. R. GOULD.
HOW TO PREVENT SILVER STAINS.....By E. A. PIERCE.
GENERAL NOTES.....By the EDITORS.
NOTES AND QUERIES.....“ ”

Convention Supplement to the Photographic Times:

TO THE PHOTOGRAPHIC FRATERNITY.....By W. H. POTTER, *President*.
THE MEDALS TO BE AWARDED (illustrated).....By JOSHUA SMITH.
RULES AND REGULATIONS TO GOVERN THE PHOTOGRAPHIC STOCK DEPART-
MENT OF THE CONVENTION.
PRIZES TO BE AWARDED AT ST. LOUIS CONVENTION, By R. BENECKE, *Local Secretary*.

There may be some who are not fully aware of the growth of our journal, so to such
and others an offer is made of a month's trial (four weeklies) for 30 cts.

W. IRVING ADAMS, Agt. **SCOVILL MFG. CO., Publishers,**
SUBSCRIBE NOW AND SECURE THE BACK NOS. BEFORE THEY ARE ALL SOLD.

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H. A. HYATT, Mound City Photo. Stock House, 8th and Locust Sts. St. Louis, Mo.	WILSON'S PHOTOGRAPHICS, \$4.00.	GAYTON A. DOUGLASS & CO. 185 & 187 Wabash Ave. CHICAGO.
SCOVILL MAN'G CO. 323 Broome St. New York.	D. TUCKER & CO. Buffalo, N. Y.	ALLEN BROS. Detroit, Michigan.
C. H. CODMAN & CO. Boston, Mass.	WILSON, HOOD & CO. 825 Arch Street, Philadelphia, Pa.	B. FRENCH & CO. Boston, Mass.
BUCHANAN, SMEDLEY & BROMLEY, 25 N. Seventh St. Philadelphia.	A. B. PAINE & CO. Fort Scott, Kansas.	MULLETT BROS. Kansas City, Mo.
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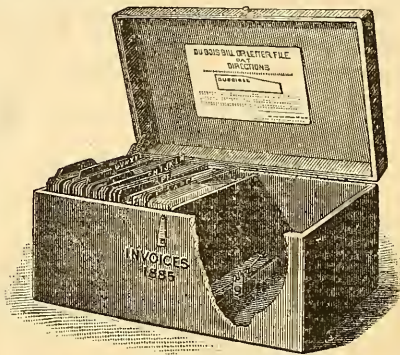
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NEW YORK,
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Respectfully,
GEO. R. BIDWELL.



NEW YORK,
April 27, 1886.

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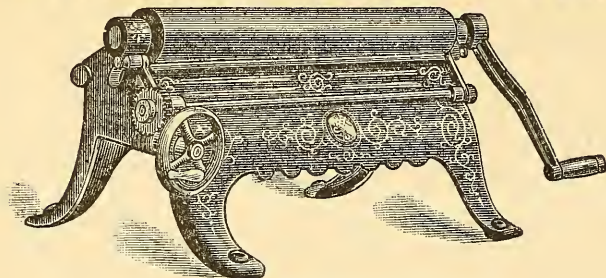
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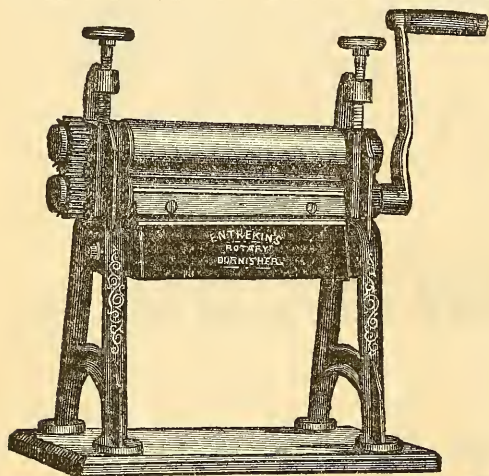
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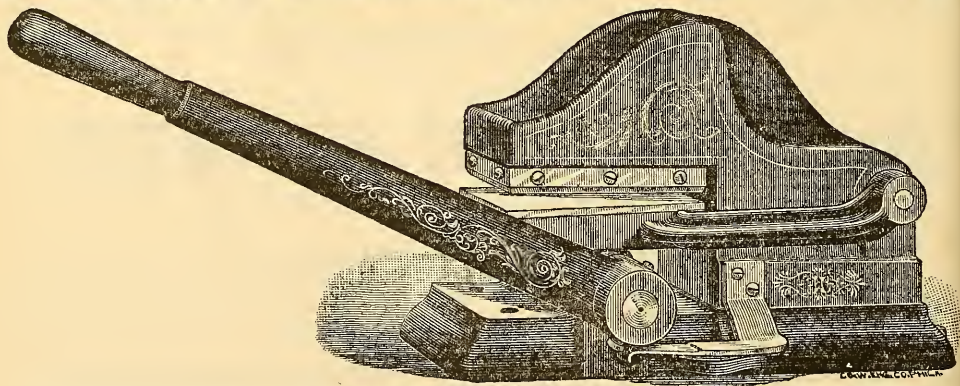
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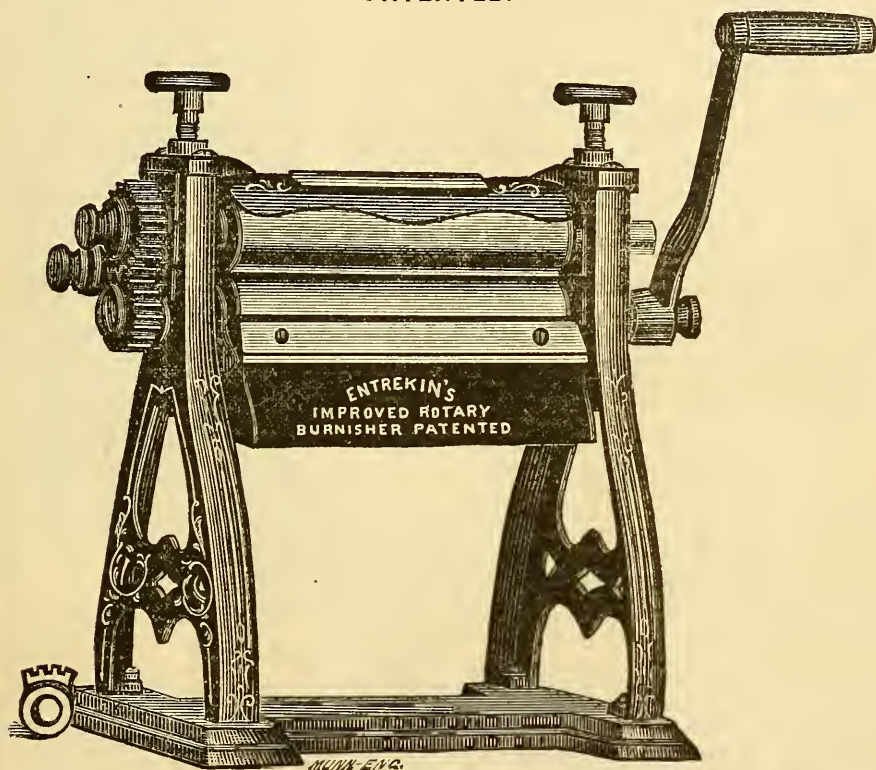
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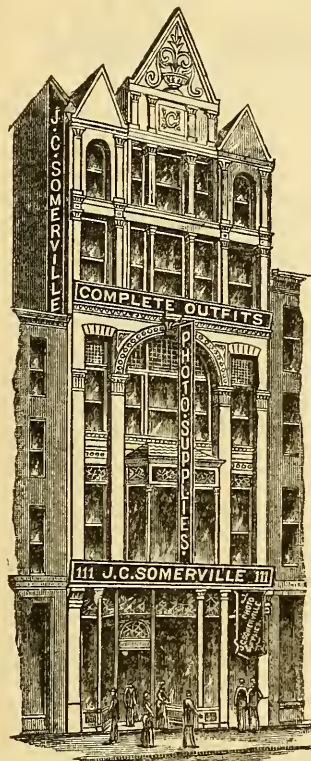
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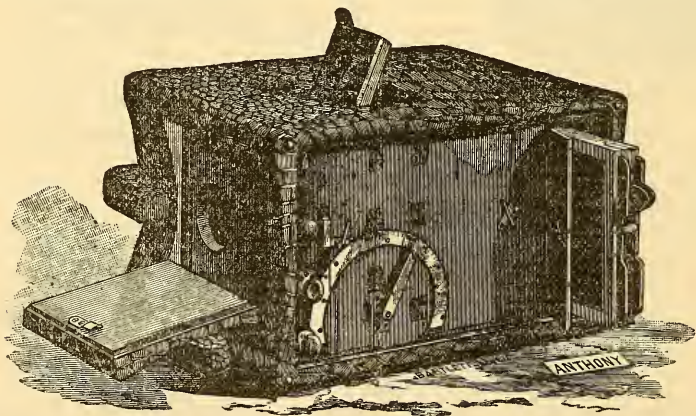
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THE

Philadelphia Photographer.

EDITED BY EDWARD L. WILSON.

Vol. XXIII.

JUNE 19, 1886.

No. 276.

MY PHOTOGRAPHIC HOBBY.

I LOVE to get up in the morn,
Just at the "peep o' day,"
And mount my steady steed upon—
My dry-plate cam-e-ra.



I love to ride it through the town
Before the folks are out;
Then on my ruthless plates goes down
'Most everything about.



If things are far, I focus front,
And hug my hobby's neck;

It doesn't take me long to hunt
The light, shade, and "perspec."



If things are near, I focus back,
And never once bewail;
For I am just as quick to whack
My tripod on his tail.



I love to ride, when I am done,
Back to the noble town;
Then "Hob" and I have all the fun,
While all the people frown.

I often find my plates "light struck,"
The holder couldn't hide—
We rode so hard—but hang the luck—
We had a jolly ride.

THE DEPARTMENT OF ART.

CONCERNING TECHNIQUE.

WHAT is technique? That depends. We expected you would ask. As a word, technique is an art term rather than photographic as distinguished from art, but, according to our politics, photography, *true* photography must be and is and ever shall be art. Therefore after all technique is a photographic term, and we may use it without being considered outlaws. And it means *workmanship*—the manner in which things are done. The technique of a picture is its drawing, light and shade, color, and perspective in contradistinction to its sentiments or ideas, or conception if you will. Given a gentleman who is overly fat, or who has an inconceivable nose, and who desires a photographic portrait made to hand down to posterity that will show his deformities of size and shape the least. He is willing to go to some trouble and expense to secure the fulfilment of his desires, and therefore wisely tries several photographers. No two treat him alike, but in whatever way they do pose, light, and generally manage, that is the technique of their picture.

Let us choose an illustration, further, from our stock of pictures. "Autumn," by Mr. F. Granberry, drawn from the painting by the artist himself. The technique is magnificent. The lines (which you now understand all about) of the leafy background are so carefully curved and twisted and turned as to make the crisp leaves stand out in fine perspective just as they do in autumn when the tender juices of summer are exhausted, and they begin to be stiffened by the frosts of fall. How rotund is the fruit. The peaches and the plums turn over on their sides from their weight of richness, and the grapes lean over against one

another from sheer fatigue, as though the juice all ran over to one side like the weight inside a Japanese puzzle-egg. Now if the leaves hung lank and limp, and the peaches and plums stood over on their stem ends, and the grapes were scattered at random here and there over the floor, we should

FIG. 1.



Autumn.—F. Granberry.

say that the destructiveness of winter had begun to play upon them, and that it was not a picture of "Autumn" at all. The technique would then be bad enough—so bad that even the admirable light and shade of the picture would be without avail.

A picture is technically good if it gives a distinct indication or impression of the natural model. It is technically incorrect if it gives us false information as to the shape and form of nature, or as such shape or form are transmitted to our brains by the optic nerves.

Our next illustration is from a drawing of his "Return from the Ridotto," by Mr. A. H. Baldwin. In our humble opinion the technique is so bad that until we are told it is a Venetian lady in a gondola, we could hardly guess the conception thereof.

No photographer would pose a lady in this manner, for he knows full well that he would secure such enlargement of his fair

subject's feet as to bring down on his head; facts of nature, so far as the limitations of her eternal malediction. Even a Venetian the material will permit.

FIG. 2.



Return from the Ridotto; A Venetian Lady in Gondola.—
A. H. Baldwin.

photographer, with a subject desiring to be represented pillowed up in her gondola, perhaps sick with jealousy, tired, returning from a ball, would scarcely dare pose her in this way lest all her green-eyed rage fall upon him. If he did, his technique would be bad.

A much better specimen of technique is "The Courier," by Mr. C. F. Blauvelt. Here is a not impossible picture for the photographer to render under his skylight.

The courier is duly accoutred for his day's work of guiding the tourists who have employed him, through, say the noisy streets of Naples. He stands at the stairway of the albergo in easy attitude, conversing, perhaps, with some of his party above stairs as to the day's pleasure. The handling, the technique in pose, in drawing, in light and shade, in perspective, is perfect. Perfect because there is a true rendering of the pictorial

An untrue rendering would be bad technique. You need but turn the man's head in any other direction than it is to have a bad rendering.

Now we leave portraiture for a little, and step up to a class of subjects that is becoming quite the rage with camera lovers, and choose for our pointer Edward Moran's breezy picture "Off Cape Hatteras."

What a brilliant effect of light through breaking clouds there is here—just such an effect as one naturally expects to see off Cape Hatteras and kindred spots. And what a sense of *motion* is given by the bellied waves, the rolling vessel, the incline of the spars, and the "noise" of the clouds. Rarely can we secure such admirable technique in our instan-

FIG. 3.



The Courier.—C. F. Blauvelt.

taneous views. There are a few good reasons for this, which can only partly be obviated.

One of these is our modern plates. And our drop-shutters are in such a hurry that we catch the subject between breaths, as it

resting in the crevices, or foregrounds rich in clover or daises or fields of golden grain. Neither lines of tall oaks, or castled crags hiding the blue sky from our view. On the contrary we should begin to picture what the fair artist has so fairly represented by her splendid workmanship, a foreground broad in water, with bits of turf here on the left, and a city whose sunken-down-into-the-lagoon effect is accentuated by the low line of the horizon and the unusual height of sky. And how she gives charming variety of light and shade in masses arranged with feminine subtlety by the deft manipulations of the brush.

We had some excellent opportunities to study technique during the past few weeks, in the various exhibitions held in our city. The one of the "impressionist's" school interested us exceedingly.

It is a marvel how differently men work to obtain similar results. More of this anon.

It will be discovered that we have used the word technique broadly, as covering the whole construction of the picture, rather than in the narrower interpre-

FIG. 4.



Off Cape Hatteras.—E. Moran.

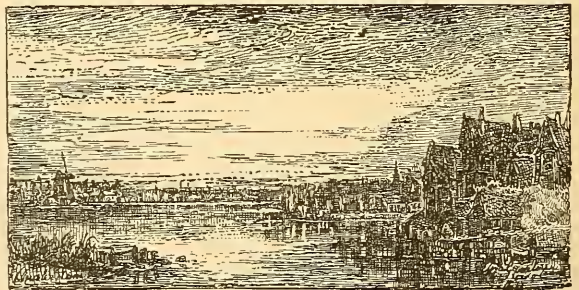
were, and do not secure the sense of motion. One reason of this is, as a rule, the photographer posts himself upon shore and points at his models from their sides. An end or three-quarter view would be better. The only difficulty is to find a place to post the camera. From a long pier is best.

But we are trying to understand technique now, and when we do we shall the better secure its correct rendering in our work.

One more example, and this time by a lady; the "Amsterdam" of Miss Eliza Greateorex.

With our eyes blindfolded, as soon as the name Amsterdam is heard we could almost formulate the technique of any good picture of it in our minds. We should expect no rocky banks with sea birds

FIG. 5.



Amsterdam.—Eliza Greateorex.

tation of the painter—the mere brush work.

For if there is one subject above another which we as artists want, it is more light on our technique. We leave you a while in the Amsterdam marsh.

ON THE USE OF EASTMAN'S PERMANENT BROMIDE PAPER.

I HAVE used the C. paper to some extent, both for enlargement and contact printing, and my experiences and difficulties may be of some interest to your readers. My first enlargements, with the roughest apparatus, were admitted, by all who saw them at our recent exhibition, a great success—enlarged two diameters from 4 x 5 negatives, a dull to a bright sky, giving them from a minute and a half to two minutes, using a Dallmeyer 7" focus, single landscape lens, smallest stop, say, U. S. No. 81. Developed by the formula supplied with the paper. In one case only did I expose a rather yellow negative for three minutes to a bright sky. The only trouble I have had has been blistering. The prints have been treated singly, and generally only about four made on same day. As far as I remember, I have had no blisters in the first print on any occasion. Salt washing water has had no effect, but was never used on the first print. I have used both acetic and citric clearing baths as recommended, with similar results; one big blister, as large as a dime, in two out of three prints. One hypo bath used for the four prints successively. Curiously enough, on contact prints, made at about eight inches from an argand burner (coal oil), and worked with solutions from same bottles, I have never had a blister. My last experience with a very hard portrait, clear in shadows, very opaque in high lights, is perhaps worth noting for the benefit of other inexperienced amateurs:

1. Time, 15 sec.; oxalate, 18 cc.; iron, 3 cc.; bromide (40 per cent.), 1 cc.; dense and hard.

2. Time, 15 sec.; oxalate, 18 cc.; iron, 3 cc.; bromide (40 per cent.), $\frac{1}{2}$ cc.; undeveloped and measly.

3. Time, 10 sec.; oxalate, 18 cc.; iron, $4\frac{1}{2}$ cc.; bromide (40 per cent.), $\frac{1}{2}$ cc.; dense, hard, no detail.

4. Time, 15 sec.; oxalate, 18 cc.; iron, 2 cc.; water, 12 cc.; developed well; result, softer, but lacking detail.

5. Time, 22 sec.; oxalate, 18 cc.; iron, 1 cc.; water, 18 cc.; flashed right up, but

finally developed into a very fairly soft, rich, brown pink, with good detail.

Yours truly,

E. L. W.,

Pacific Coast A. P. Association.

PRINTING EASTMAN FILM NEGATIVES.

I HAVE been experimenting with Eastman films, and have found a few new things about them (if new to you I shall be glad to give you a tip). First, they print far the best *not oiled*, they take a little longer, but give much softer prints just as glass negatives do if covered with tissue paper. And beside you save the bother of oiling, and that, as you must know, has to be done over and over again if you print much from a negative, as the oil will dry out; but if not oiled they last forever. A good negative (unoiled) takes with Eastman bromide paper 30 to 35 seconds exposure by contact one foot from a gas burner, and a film negative *unoiled*, takes, on a fine day, about two-thirds more time to print than an oiled one. Secondly, the film negatives will enlarge as well as glass and show *no grain*. I have just been showing some enlargements at the Photo. Society (see *Brit. Journal* of the 14th inst.), from 5 x 4 film negatives, Eastman's *unoiled*. I gave four minutes by daylight in an enlarging lantern, using a portrait lens stop 32 (P. S.) about F. 20, and got good enlargements up to 10 x 12, and showing no grain, and in fact quite as good as direct prints. Another thing with these films; I find, in using the soda developer or pyro potash (Beech's), by adding two or three drops of a ten per cent. solution of ammonia, to bring up the image at the end of the development, you will get a negative with plenty of density and contrast. We have a new film coming out over here they say will be very good, it is called the Woodbury Film; I fancy Anthony & Co., of New York, have taken it up in America.

The rest of the photo-world goes on as usual, and, as far as I can see, the only new thing is films in place of glass, and slides and carriers for holding said films, but I for one think it will be a long time before glass is put out of the market. The best I have

had is Eastman's stripping film, they are a little trouble but pay in the long run. Excuse this long letter, and believe me

Yours truly,

A. R. DRESSER.

BEXLEY HEATH, ENGLAND. Sec. of the Camera Club.

THE S. O. OF S. P.

DEAR EDITOR: In your issue of March 6th there is a short account of "The Secret Order of Scientific Photographers." I read the article eagerly, for I have long been a believer in that remedy for many of our photographic difficulties. You may remember that six or seven years ago, in a series of articles in your pages, I asserted that it was only by some such organization that the downward tendency, then evident, could be arrested or retarded. I said that photographers, any more than soldiers, could not fight their battles single handed; organization and united action were needed. That they could not successfully resist the encroachments of the public and the treachery of their fellows unless banded together, honor-pledged, and even oath bound to stand by each other at all hazards, in some intelligent organized action. I was naturally glad to see, even "after many days," that my prediction was being verified. I was glad to see my judgment had been so truly grounded in the nature of things, that the constant pressure of like causes had produced like opinions in other minds, and thus this organization.

I was not surprised to hear where it had started, for a short time before I had been privately informed that the photographers of Minneapolis and St. Paul were fighting each other to the death, until prices had been reduced to one dollar per dozen for cabinets in reputable galleries. "Out of evil cometh good." "When things are at their worst they mend." It does not require supernatural sagacity to see that some remedy must be found against such cut-throat trade as that.

Desperate diseases require heroic remedies. A secret, oath-bound organization is heroic, and will possibly cure if the patient has the vitality to stand the treatment. Naturally I was interested in this movement so

announced, and have looked ever since for some word of recognition and encouragement for the new Society, but so far have seen none. Perhaps the recent labor troubles cause hesitation in approving secret organizations, which, while they give great power, often produce worse evils than they cure if that power is not wisely used. However, the new Society will pardon me if, while wishing it rapid growth in power and usefulness, I take the liberty of saying that in my humble opinion they have made a serious mistake at the start by endeavoring to create three classes of merit in photography.

To separate photographers into first, second, and third classes is an arbitrary distinction so difficult to be accurately decided, that it will never be cheerfully submitted to except, perhaps, in extreme cases. All photographers, like all free Americans, consider themselves first-class, or, at least, will never willingly admit otherwise.

But what need of putting this humiliation upon anyone. The profession of photography surely has enough natural distinctions of rank and relation without creating arbitrary ones. The old order of Masonry when instituted, had a reason for being and a vital purpose to sustain, and separated naturally into three grades or ranks. First, the learners, apprentices; second, the fully instructed and capable workmen employed for wages, journeymen or fellowcraft; third, the rank of master workman for those who directed or employed the labor of others, and paid wages as well as worked themselves in places requiring the highest skill.

In photography we might divide into printers, operators, and proprietors; or amateurs, who photograph for amusement, professionals, who work for wages, and masters, who employ assistants and pay wages. These natural distinctions of rank would hurt no pride and create no jealousy. And anyhow it is almost self-evident that the interests of employer and employé are so distinct that there should be a rank or class for each, having separate sessions for consideration of their diverse interests, while in the united general councils all conflicting opinions and interests could be discussed and harmonized for the common good.

Much might be said, but fearing that I

have already taken more of your space than the present aspect of the subject warrants, I will close with the prediction that if this organization is energetically pushed and wisely managed, the time will come when its doings will be recorded in every number of every photographic periodical, and its influence felt in every photographic interest of our great country, if not the whole world.

Yours truly,

E. K. HOUGH.

WINSTON, N. C.

(Translated for the Philadelphia Photographer.)

LIGHTING DARK ROOMS.

M. CASSAN, of Toulouse, addresses the following letter to the editor of the *Progrès Photographique*:

I have read in the February number of the *Progrès* the article concerning the use of varnish, colored by dragon's blood to take the place of glass in dark-rooms. As the coloring property of this substance is very weak, to obtain the proposed results, I give you herewith an extract from Chapter II. of the second edition of my process for the automatic development of gelatino-bromide negatives, giving a coloration as intense as may be desired.

Red light, being the one having less chemical action on bromide of silver, and good red glass being expensive, here is a way to obtain it at very little expense. The window of the dark room, glazed with ordinary white glass, for an opening measuring $1\frac{1}{2}$ yards of surface, dissolve 5 grammes (77 grains) of carmine, in 40 grammes (1 oz. 2 drs.) of liquid ammonia. On the other hand, dissolve 2 grammes (31 grains) of picric acid in 450 grammes (14 oz. 3 drs.) of water, to which 7 grammes (2 drs.) of glycerine have been added; introduce into this yellow water 50 grammes (1 oz. 5 drs.) of gelatine, which is allowed to swell for an hour, and then dissolved over a water bath. When the gelatine is melted, the ammoniacal carmine coloring is carefully added to it, and kept hot over a water bath; this mixture is spread with a flat brush over the glass. As soon as the first coat of the colored gelatine is sufficiently set, it may be covered with a second and then a third coat; by this means it is

possible to obtain a coloration as intense as may be wished.

In order that this brilliant red light should not fatigue the operator's eyes place before the glass, instead of curtains, two strips of yellow paper, and the light of the dark-room will then be in the best possible condition.

VIEWS FROM MY OFFICE WINDOW.

I SEE a good deal of shrewd diplomacy going on down in the street—and I see a great lack of it sometimes too. One case of each kind in point.

EXHIBIT A.—Over on the corner a thick-set, bronzed Italian (such as you see playing *mora* in the streets near the Ghetto in Rome) keeps a news-stand. Helped by the æsthetic sense born in him, he has been able to discern that people will buy more newspapers of a little bare-headed girl with a gaily-colored shawl over her shoulders, and long black, shiny pigtailed hanging down over the shawl, or of a slender little boy with large, round, liquid, luminous eyes that roll up so when he looks at you, than they will of him at his stand. He therefore employs a number of such picturesque little creatures, and sends them out in varied directions as spokes for his wheel.

When such a child causes you to stop, and you ask for a "Times," and you are answered, "I hav'n't got one but'll git ye one in a minit," are you going to leave before the agent runs to headquarters and returns with what you ask for? If you do, the noble Roman has miscalculated.

EXHIBIT B.—A shrivelled old man with an inflamed, leprous-looking face, appearing as though he had never had a square meal, marches up and down wedged in between two placards which read, "Go to Hall's Dining Room for your Meals." Every day he seemed to be pinched thinner and thinner by those flopping placards, until now you can hardly see more than an edge of him. Query. Wouldn't more people go to Hall's if he would send out a better example of his work? And, artistically, would not diagonal lines look better for the placards than vertical ones?

A WEEK ago, "Décoration day" was celebrated here. The view of the military parade from my window was very fine. The statues of Washington and Lafayette and Lincoln were surrounded with floral decorations, and at an early hour the "Posts" began to march up and salute, while their bands played "Hail to the Chief" to George, the Marseillaise to the Marquis, and "We are Coming" to "Father Abraham."

After an hour or two of allowance for the crowd to collect, the parade was seen coming down Fourth Avenue—first the boys, then the police, and then the—ah—drum major. The musicians came next, followed by the soldiers. There were

Red coats and white trowsers.			
Blue	"	red	"
Buff	"	blue	"
White	"	buff	"

The curved lines of the bugle ran across the wave-notes of the cornet and the Gatling carriages trundled in unison with the bagpipes of the Highlanders. Color was added to the whole by the man with long, wide-angled, broad-tread feet who carried the water can.

When they wheeled around the Square some fine drilling—"three files from left to rear! right shoulder shift! left oblique! march!" and all that sort of thing—just like old times when photography was scarcely twenty-one, took place.

The "Gallant Seventh" was out in force and looked fine. From a balloon the companies must have looked and moved like the spokes of a wheel around the hub of the park, with the fountain as the axle. When it came to "ground arms," some of Lafayette's festooning fell flat. An old "moustache gray," with no legs, rode in a carriage and carried a flag. A fop sat near him and smoked a cigar. The "middles" marched like land lubbers, and the colored men made a good appearance.

Many could not see, and I wished for some means of hoisting them up to the window. Two hours were required for the parade to pass. Great wagon-loads of flowers brought up the rear. We all know what they were for. They are more benign than bullets, as a rule.

NEXT day the guardians of the city's safety followed the military, when the annual police parade came off. "The force" in new helmets, summer uniforms, and glittering buttons, made a gallant and terrorizing show as they marched up Broadway. Captain Williams and Inspector Byrnes were in the line, and received their share of applause, as did the famous Broadway squad. Ladies often steered across the perils of the crowded highway, fluttered snowy kerchiefs from window and balcony for the latter. The men marched well, and were really an impressive sight. The anarchist or criminal who viewed them from the curbstone trembled before so much embodied "majesty of the law."

ONE day we missed one of the street sounds, and noticed an unusual amount of travel on the shady side of Broadway. The car-bell's tinkle was hushed, for the cars were tied up. The hurried broker and the tired shop girl walked down town alike, alike imprecating the Car Drivers' Association that ordered the strike, alike late to work. But it was only for one day. Now the wheels go round, the bell clinks, and we can ride if we wish to—fare, five cents.

THAT



IG OFFER.

MADE by us a few weeks has been a boon to many. *Eight dollars worth of books photographic for four dollars* is an unprecedented offer. The regular price, you know, is—

Dr. Vogel's Progress in Photography, the newest text-book which may be called a book fully up to the times, \$3.00.

Robinson's Pictorial Effect in Photography, not only an entertaining and delightful reading book, but one all art lovers should have, \$1.00.

Gihon's Guide, a most timely work at this time of enlargement revival, and outdoor work, \$1.50.

Tissandier's History and Handbook of Photography, a beautifully printed book, translated from the French, \$2.50.

In all, \$8.00. Reduced, \$4.00.

We offer them for one month more—if the stock holds out. They are going satisfactorily almost every day. The first purchaser was Dr. J. H. Janeway, of the U. S. Army, and the well-known member of the New York Society. He has sent others to follow him.

Among others who have secured the set are Messrs. W. Judd, Mancelona; W. B. Parish, Sharon; R. Carlton, Majove; R. S. Griswold, Old Lyme; Max Hausmann, Washington; A. F. McDougall, Bozeman; C. G. Busch, Claremont, N. H.; R. E. Wales, Cherry Valley; Prof. C. M. Dodd, Williamstown; J. H. Edson, Hanover; Charles H. Devenney, Louisville; E. E. Brown, Harrisonburg; and Charles Butterworth, Wilmington, Ohio.

Repeated letters of approval, satisfaction and gratitude come to us, which, of course, make the whole transaction very gratifying. The following is an example:

BOZEMAN, MONTANA, May 7, 1886.

E. L. WILSON.

DEAR SIR: The "Big Offer" set of books arrived here yesterday in first-class order. I am highly pleased with them. I now have quite a library of text-books for an amateur, viz., *Wilson's Photographics*, *How to Make Pictures*, *Twelve Elementary Lessons in Photo. Chemistry*, *Photography with Emulsions*, *The Modern Practice of Retouching*, *Photographic Mosaics*, and the magazine of magazines, the PHILADELPHIA PHOTOGRAPHER, together with the "Big Offer" set.

A. F. MCDUGALL.

COLLODIO-CHLORIDE PRINTING BY AN IMPROVED METHOD.

THE great want of permanence of albumen prints, and the so far insufficient beauty of gelatine prints, induced me last spring again to take up collodio-chloride printing. I had already long since practically worked this process, but had laid it aside, as I had

occasionally observed with alarm the collodion film crack and chip; in places even leaving the paper altogether. Why it was not the practice to counteract this evil by means of a suitable varnish I do not understand. A further difficulty lay in the toning; a warm, rich tone, such as we are accustomed to in albumen pictures, could not be obtained; it was always cold, frequently violet. This was solely due to the improper preparation of the collodion; for the toning bath which we now successfully use for collodion pictures is the same as that formerly employed, except that the proportions are slightly different. With my process the same tones as with albumen, if not even more beautiful, may be obtained with ease and certainty. Of all things, however, for the collodion process, a neat skilful operator is necessary. Such an one will obtain a more perfect result by this printing process than with any other.

A chief advantage, however, of this process is the greater permanence of the prints. We have collodion prints more than twenty years old which in clearness and depth do not yield to those freshly made. There is neither yellowing nor weakening. Another advantage is its greater sensitiveness, almost double that of albumen. It is, moreover, not necessary to prepare the paper, or to fix and tone every day, for the prepared paper retains its good qualities for a long time. A large stock can be got ready, and many prints may be made before being toned and fixed. The manipulation of the process is not more difficult or tedious than that of our customary albumen process; on the contrary, when one has overcome the difficulties from novelty, the whole work goes smoother and quicker. The covering of a sheet of paper takes certainly no more time than the floating of albumen paper; the drying is quicker; the exposure is also quicker; the dissolving of the unreduced silver is at least as quick as with the other process; toning, fixing, and final washing can be done in notably less time, and with considerably greater certainty, than with albumen. The remaining processes are the same as in albumen prints. Hot rolling is not necessary, for with my process, and on my paper, prints possess a glossy surface like enamel.

A plain collodion is prepared with equal parts of ether and alcohol and from two to three per cent. of pyroxiline.¹ With a thin collodion it is easier to obtain a coating of even thickness upon the paper than with thick collodion; it must, however, not be poured off so soon as the latter. If the film is unequally thin, either from too thick a collodion or from unevenness of the paper, different tones will be seen in the picture, as the thicker places will appear less toned and the thinner ones more so. An old collodion which has been standing some time is to be preferred to one newly prepared—it is more perfectly combined and cleaner; at the same time it must be most carefully poured off from any sediment that has been deposited. A little castor oil is added—not more, however, than half per cent.—otherwise the high glaze of the picture is injured, and the toning made difficult.

In a small glass put two hundred grains of nitrate of silver, and three and a half drachms of water; when the silver is dissolved, nine drachms of alcohol are to be slowly added. Fifty grains of citric acid are also dissolved in an ounce and a half of alcohol, and fifty grains of chloride of strontium in another ounce and a half of alcohol.

Instead of chloride of strontium, other chlorine compounds may be employed; but one will do well to keep to that one that produces results most to the taste of the individual. Chloride of calcium prints too blue, so that it is impossible properly to control the toning; one must then work according to time rather than by sight, and that is always a delicate thing to do, for the temperature of the air, the water, and the solutions, is not always the same. Chloride of ammonium prints of a reddish color, and the toning bath will not work so well; it appears to have a retarding action on the toning. It also appeared to me that the different chlorides give different grades of sensitiveness to light; with chloride of cal-

cium the printing is quicker than with chloride of strontium; but for the reasons given, I prefer the latter. Chloride of strontium, especially on paper prepared with gelatine and baryta, prints of a rich red, and the action of the gold bath is very easily observed. The chloride of silver collodion which I prepared commercially contained chloride of strontium.

When the ingredients mentioned are perfectly dissolved, the citric acid is added to the solution of chloride of strontium, and this solution mixed with fourteen drachms of plain collodion, little by little and with shaking or stirring. When thoroughly mixed the silver solution is added to the collodion in a yellow light, very slowly and with much stirring. It sometimes happens that after the addition of the alcohol to the silver solution, some of the salt crystallizes out; the glass vessel must in that case be placed in warm water until the silver is redissolved, when it must be mixed with the collodion without loss of time. The collodion emulsion must then be repeatedly and thoroughly shaken, and after standing for an hour is ready to be applied to the paper.

The filtering of such an emulsion is a tedious process, since the filter becomes so quickly choked; filtering can, however, be dispensed with by always decanting with the greatest care the plain collodion from its sediment. The remaining three solutions may be easily filtered through paper.

When such a collodion remains standing for a long time, a fine deposit of chloride of silver separates and the collodion is unequal; in this case it is necessary to shake it up again.

The coating of paper with an emulsion is almost as easy as the coating of a glass plate. The collodion is poured on towards the right hand side of the upper edge, allowed to flow towards the left hand upper corner, then to the left hand lower corner, and finally poured off from the right hand lower corner into a separate wide-necked bottle. Care must be taken that the paper lies quite flat, and that the collodion flows evenly, for if an edge is left anywhere, and the collodion flows again over the same place, a thick ridge is formed, which, in the finished print shows as a reddish mark. A thick film requires a longer

¹ Herr Geldmacher does not specify any particular kind of pyroxiline. The usual English commercial sort would be apt, with the proportions given, to yield a collodion that would be thick or even slodgy. A very soluble or high-temperature pyroxiline is probably intended. The alcohol must be very strong.—*Translator.*

time in the gold bath to reach the desired tone than a thin film, and on this account an unequally thick preparation causes patchy toning. Frames in which the paper is held flat and stretched, are made expressly for the purpose; in these, paper is very easily coated. An even covering upon a sheet of paper may, however, be obtained by turning up the edges from a third to half an inch all round. Those who have had no experience in coating, should begin with the smaller sizes.

With collodion printing, a great deal depends upon proper drying. Paper prepared in a moist atmosphere and dried slowly yields flatter prints than that which is dried in a warm temperature, which, however, should not be actually hot. The best manner of drying is to let the sheets hang from strings in a well-warmed room. It will thus dry in a few minutes, after which, so that it may not be too stiff and lie in wrinkles, it is brought into an unwarmed chamber, where it becomes flat again. Since coating in a warm room is difficult on account of the too rapid evaporation of the ether, it is to be recommended that the coating be carried on in a cool place, and after setting that the paper be brought into the drying room. Paper dried at too high a temperature will not tone.

The turned-up edges are now trimmed off with shears, and it is important that all the cutting up should be performed with scissors, and not with the paper knife, since the latter easily damages the surface; moreover, with the knife, the cut is not smooth and clean, and a ragged edge may bring about a variety of troubles.

The exposure in the printing frame is just the same as with albumen paper; it must be observed, however, that the time of printing is much less. Over-printing is not necessary, for there is no reduction of the shadows in the different baths. As I have already stated, printing may be carried on for a week together, without troubling to tone and fix; provided the print is preserved from light and kept dry, no impression is made upon it.

The removal of the unreduced silver, is just as rapidly effected as with albumen paper. Curling of the edges does not take place with my method. The collodion is so

vigorous that a single coating suffices in every case. When double coating is employed the last-named fault will show itself. Multiple coating also involves an increased expenditure of time, and makes an important difference in the cost of production.

The free silver being entirely removed, we proceed to the toning. A concentrated normal toning bath is prepared as follows:

Chloride of gold . . .	15 grains.
Water	6½ ounces.

And in another bottle,

Sulphocyanide of ammo-	
nium	150 to 300 grains.
Water	15½ ounces.

The proportion of sulphocyanide of ammonium is adjusted according to the taste of the operator. The smaller the proportion of this salt to the water the bluer are the tones obtained, the larger the proportion the warmer the color. For my own part I commonly use a medium between the two quantities given. The gold solution is added little by little to that of the sulphocyanide. A thick, reddish precipitate is formed, which after some days dissolves, and a clear solution remains. Warmth and light accelerate this clearing. It is only when the bath has become clear like water, that it is fit for use. For each sheet of paper to be toned an ounce and three-quarters of the solution is taken, and diluted with five times as much water. With less dilution the toning is more rapid, with higher dilution it is slower. The room in which toning is carried on should be well warmed, and all the solutions, as far as possible, should be of the same temperature. In a cold room, using the same solutions, the work is tedious and generally the result is not so good. It then occurs that the toning bath will not act, and at last one is obliged to warm it.

When there are many prints to be toned, it is well not to use the whole of the bath at once, but to pour out a part, and add the remainder by degrees as required. In general, it is not well to have too many prints in one dish, as one cannot then keep them sufficiently separated and turned about, and some of them will be apt to show red patches; it is better to immerse the prints a few at a time, or to use two or even three

dishes at the same time. These can be better managed than too many prints at once in a single dish.

I use a fresh bath every time, though the old one can be employed with the addition of new; always use fresh if brown tones are desired. The fixing is done quickly and safely, since the outer surface or pellicle, which alone holds the picture, is so very thin, it is easily penetrated and washed out in the solution of hypo. For a bath of one part sulphuric acid in thirty parts water, ten minutes suffice. In order to see and prove the superiority of this method, the following experiment can be tried: Take a black, gelatinized piece of paper, coated with quite a thick layer of chloride of silver collodion. After it is dry, the chloride of silver can be distinctly seen as a bluish-white layer upon the black paper. Expose it, and then the picture appears black, yet the lights are quite clearly discernible. Put this into the fixing bath and it will be noticed that, as it becomes white, the chloride of silver, underneath, dissolves. The time that it takes to do this can be accurately determined by noticing the clock.

With all such pictures, made with collodion or by any other method of copying, a longer time in the bath, will always be of less advantage than a shorter one. The thinner the picture film, and the weaker the fixing solution, just so much easier will the washing out be, and the freeing from hypo. If it is done with dispatch, and renewing of the water, the pictures can be washed in half an hour. Longer washing injures more than it helps, for, in the first place, the color recedes, and, in the second place, the collodion layer becomes so soft, that in the subsequent handling it is easily injured. To fix at night, by this method, should be done away with. This process can be performed better by day, so that prints can be taken out in the evening, and allowed to dry during the night.

With albumen pictures it is usual to trim before toning. This is not done with collodion pictures, since the corners do not keep smooth in the different washings. The collodion surface becomes more or less rough on the edges by the force of the water, and the friction of one against another. For

this reason, it is best to trim after being in the water, using blotting-paper with shears or trimmers, while the prints are moist. In doing this, more care is necessary than with albumen, for the wet and tender surface cannot be so well preserved.

As little retouching as possible ought to be done on collodion pictures. Everything should be done on the negative. Cases will occur, however, in which the positive must be retouched. Then this can be done, on completely dry pictures, by using soft lead, or if bright spots on the bottom are to be covered, use clear indigo ink. An addition of carmine lake (*drachensblut*), and neutral tint, are hurtful, since they being mixed with gum, will be noticeably visible, producing a dim appearance on the highly glazed collodion picture. It is true, that lead can also be seen appearing by reflection to shine like metal, but, by later treatment, this disappears altogether. These pictures can be given a burnish hot without any previous preparation, that is, if they are handled carefully and are clean—an aqueous solution of Venetian soap can be rubbed on beforehand, however, with all satin-finished pictures. Trouble happens sometimes, either from unclean handling, from defective machinery, from an uneven thickness of the film, or various other causes. I prefer, therefore, to burnish cold and afterwards to varnish. For collodion pictures, prepared varnish succeeds very nicely. This varnish is thin and clear as water, flows almost of itself, dries in half an hour, always retains its elasticity, produces an enamel-like gloss, gives to collodion pictures a transparency and depth, finer than which is not often seen, and besides it imparts an external, protective covering.

This varnish is indispensably necessary if a great degree of brilliancy is desired, besides one can be sure that his productions are insured against an external mechanical influence. After the varnish is dry, the burnisher can be used again, but this is not absolutely essential. Such pictures could be colored in oils, without any other preparation. The color does not sink in.—*Herr Geldmacher.*

St. Louis, June 22, 1886.

THE REMOVAL OF SILVER STAINS FROM GELATINE NEGATIVES.

BY DANIEL ROBERTSON.*

No one who has had any experience of printing gelatine negatives in wet weather but knows too well what the little opaque red spots are that spread over a negative and render it useless. These spots are caused in every case through moisture acting upon the gelatine film, and this sucking up from the albumenized paper a quantity of the silver on its surface, the film thus becoming impregnated, with the result that, on exposure to light, red spots are formed wherever the silver has found a suitable substance (in the gelatine film) in which to lodge itself. If the negative be varnished, it will generally be found that these stains have as a nucleus a small bit of undissolved lac or dust, to which the silver clings. It will also be found that, when the gelatine film is not perfectly freed from hypo, this forms a most suitable lodgement for the silver, and stains flourish luxuriously on such a soil. Do not imagine that I mean to suggest that where there is no dust or other foreign substance in the film, it would be impossible to have silver stains, for such is, unfortunately, not the case; but where impurities are, stains are more rapidly and easily formed.

Let us see what precautions can be taken to prevent stains, as this is one of the cases in which prevention is not only better, but is the only real cure. First of all, because it embraces all, avoid moisture; and to do this, let the place in which negatives are printed and printing-room be of as nearly uniform a temperature as possible. See that the padding-frame, negative, and sensitive paper are perfectly dry. Varnish every negative before printing from it, as, although there is no varnish that will thoroughly protect a gelatine negative from the effects of moisture, still, the varnish we have always assists in preventing, while an unvarnished negative will absorb moisture like a sponge.

In the event of the frame getting wet with rain, at once dry it; and should the padding have become wet, remove it, dry negative, and substitute dry padding. The water-

proof paper recommended by Mr. Stuart early in the session is very useful in preventing moisture reaching the negative through the padding. Few precautions can be given, as it depends greatly upon the printer carefully seeing that no moisture be allowed to form, and, in case it does, removing it as quickly as possible.

But let us pass on from this and see what remedies there are to remove stains of this description, if, notwithstanding all precautions, some valuable negative has become spotted with silver. One remedy suggested is to use spirits of wine and rub with the ball of the finger the stains. This, while it is useful for local reduction, is not suitable for silver stains, as the stain (generally about the size of a pin's head) does not correspond to the size of the finger, and the result of its use is to leave a part of the negative much thinner than the surrounding, and where there is a choice of two evils we generally choose the less; so in this, if we would do so, we would prefer to let the stain remain, rather than cause a transparent spot in the film that would be next to impossible to take out.

The next and only other remedy suggested, so far as I know, is a dilute solution of cyanide of potassium. The general opinion, I think, will be that it is much like spirits of wine, for, while it may be useful in removing the silver stains (which I question), it has disadvantages that preclude its use for the purpose. Its disadvantages are, it is a most disagreeable thing to use, it eats away the half-tones of a negative before it attacks the stains; and while it may be useful in one case in removing the stains from the film, there are a hundred where it has no effect. And last, but not least, it produces blisters to such an extent that no after-treatment will get rid of them, and fortunate will be the person who uses it if he can even retain the film on the plate after its use.

There is a more suitable and reliable remedy than either of those already spoken of, and, so far as I have tried it, most effective in my hands. Care, however, is required in using it. If used too strong it eats out the stains, and leaves in their place pinholes, as this negative will show. One of the first I tried was completely covered with small

* Abstract of a paper read before the Glasgow Photographic Society.

red spots, and having removed the varnish I placed the negative in the solution, and seeing the stain in a short time dissolving out, I left it for a time. Taking another negative similarly stained, and diluting the former solution, and carefully watching the negative, the stains were successfully removed from the negative, which was covered with stains in the lower right hand corner. Since then I have tried several plates spotted in the same way, and have always succeeded in removing spots, provided the varnish is first of all thoroughly dissolved off. This last is a very important point, and the success or failure of the solution very much depends thereon.

To remove silver stains from a gelatine negative, then, having caught a stained negative, proceed as follows. Remove varnish thoroughly, and then wash all the spirits out of the film, and having prepared the following solution, immediately before use, pour over the negative, and keep your eye upon it, moving backwards and forwards until stains disappear, which will take from five till fifteen minutes, according as the stains have been longer or shorter in the film.

A. Sulphocyanide of ammonia .	$\frac{1}{2}$ drachm
Water	1 ounce
B. Nitric acid	$\frac{1}{2}$ drachm
Water	1 ounce

The crystals of sulphocyanide should be used, and a fresh solution made for every negative, as when it is made up in solution it loses its strength. A and B must be made up separately, and added the one to the other. On no account must the nitric acid be added to the ammonia without the admixture of water, or hydrocyanic acid fumes will be given off, which are exceedingly poisonous; but with the addition of water the action is much slower, and no inconvenience is felt on this score.

The stains having been removed, have ready a saturated solution of chrome alum, and after taking the negative out of the stain remover, place it in the alum to harden film and prevent blistering, after which wash dry, varnish, and print as usual. The solution acts on nothing but the spots, and there

need be no fear of its reducing the negative, the only change being to turn a yellow negative to a bluish tint.

PRACTICAL POINTS FROM THE STUDIOS.

MOUNTING PHOTOGRAPHS ON PAPER.—

It is advisable to spread the paper in the ordinary way, in a moist condition, upon boards, and then to mount the pictures thereon. After they dry, the edges are to be cut and the leaves separated. This proceeding is particularly adapted to book illustrations, where the cartoons cannot be turned. So says Mr. Biggs. It would seem to us, as this method is rather tedious, that it would not be suitable for book illustrations. Should not the method of drying pictures with the lithographic press or a satinizing machine be particularly noticed? If one would think, he would call to mind, that all prints upon Chinese paper are done according to this method, and their beauty cannot be disputed. If this plan is to be tried, let the previously cut-out paper be moistened; then draw a sheet of it through water; place upon it three or four dry sheets, then another wet one, and so on, until all the paper is used; then it must be covered with a zinc plate, and lightly pressed. The photographs are to be spread over with good paste and dried upon hurdles. When dry, they must be moistened for quite a while with white of egg, to make them smooth; then press them flat, and cut them to shape. Then use a polishing stone, and, with pasted paper applied, put the photograph in the press, with the white of egg side under, laid carefully upon the marks, with a sheet of paper upon it, and draw the whole thing through the press. The picture is now pasted on, free of spots, and at the same time given a satin finish, and even if one is pressed for time it will not be drawn crooked. If, instead of a lithograph press, a satinizing machine is used, then the marks must be very cautiously put on with colored essence of varnish, upon the polished plates, and then it must be carefully rubbed off with alcohol and vaseline, lightly applied, so that it will not rust. — *Wochenblatt.*

STAR PHOTOGRAPHY.—H. Sadler, the well-known astronomer, writes in enthusiastic language of the photographs of the star *s* Lyrae, taken by the Henry Brothers in Paris, with a thirteen inch telescope. The double star is practically analyzed, and very small stars are distinctly visible. The exposure occupied two hours.

UNIFORM TONES.—To tone a great number of pictures uniformly, use a screen, half of which is lit by direct gaslight, while the other half and the views to be toned are to be kept in shade. Only in this way is it possible to secure pictures entirely uniform in tone, especially by daylight. This depends, of course, very much upon practice. We ourselves would rather tone by daylight, because the contrast between toned and untoned pictures is then much more apparent. The chief thing is always to compare the toned pictures with those coming fresh from the bath. Moreover, it is much easier to tone pictures uniformly if they assume a red color in the bath than when they become reddish violet. This is also the reason why many photographers wash their prints in a water free from salt. If in the last bath some salt be added, then the yellowish-red color is easily gotten rid of. If the quantity of toning is not too great, the rapidity of toning is not influenced by it.—*Wochenblatt*.

FLEXIBLE FILMS—THE PHENOMENON OF HALATION.—At the Photographic Association of Birkenhead (Liverpool), Mr. Forest read a paper on the sensitive flexible films of Messrs. Eastman & Co. It appears that these films, like those of Morgan and others, reduce to a minimum the effect of halation. As an example of this last phenomenon, the author mentions a print on a plate where the setting sun appeared to have bitten into the side of a house which formed the foreground of the image. In this connection, Mr. Crow remarked that the phenomenon of halation is generally due to the effort made to obtain great detail in the darkest parts of an irregularly lighted subject, from which it results that the parts most lighted are overexposed.

PURE WHITE PHOTOS.—According to a recently expressed method, paper never becomes pure white if it is treated with subli-

mate solution. The following treatment is good: Silver bath of 1:9. Add enough ammonia to a third of it, until it becomes clear; then add the remaining two-thirds, and filter the precipitate to get rid of the oxide of silver. Use good salted paper floated on this bath, then dry it and print. Then lay it for from ten to twelve minutes in a fresh, weak fixing bath, which should contain for the solution of iodide of sodium double as much carbonate. Wash well after this and mount. Such pictures should be painted over soon; for, if not properly fixed, they would soon show signs of ruin. As soon as the coloring is done let a sublimate of one part in forty parts of alcohol be flowed over it, and a beautiful whiteness will be the result.—W. W. BODE.

ACTION OF SOLAR LIGHT ON IODOFORM.—According to an Italian chemist, Mr. G. Dacomo, iodoform is only decomposed, with separation of the iodine, by the action of solar light, when in presence of oxygen, but in this case the decomposition is complete; iodine, carbonic acid, and water being formed.

A METHOD TO REMOVE THE FOG OF OXALATE OF LIME FROM THE SURFACE OF PLATES.—For the baths and washings, use ordinary water; then, after fixing, plunge the plate in a bath of

Ordinary Water . . .	100 parts.
Ferrous Sulphate . . .	20 "
Alum	8 "
Tartaric Acid	2 "

The fog rapidly disappears, and then wash in ordinary water. This process will be especially useful for prints to be used for making projections.—M. C. Simon, in *Moniteur*.

ON THE USE OF HYDROSULPHITE OF SODA IN THE DEVELOPMENT OF NEGATIVES.—M. Villecholle is desirous of simplifying the development of gelatine plates and advises invariably the use of ferrous oxalate for instantaneous as well as for all other prints. He admits that the use of alkaline developers with pyrogallie acid may give more intensity, especially in the case of instantaneous prints, than the ordinary fer-

rous oxalate, and sought a method to make this last developer suitable for the development of instantaneous prints. His investigations in this direction have taught him that hydrosulphite of soda, introduced into the gelatino-bromide films in suitable quantity, materially modifies the coming of the image without producing too much fog. This fact which has often been pointed out and experimented with, was investigated anew by M. Villecholle, and in the following manner: Sensitive plates were immersed for a few moments in a bath containing 1 for 1000 of hydrosulphite of soda, and 10 for 1000 of bromide of ammonium, as has been indicated by M. Andrea. These plates, after rinsing and drying, were kept for a few weeks before exposure. On the other hand, at this time were exposed other plates of the same nature, but which had not been previously treated with the hydrosulphite of soda. Before developing these last were immersed in the diluted hydrosulphite bath, and they gave a result more intense than the preceding ones, at least in the same space of time, as the plates previously impregnated with the hydrosulphite of soda, were less rapid in giving these effects, which they seemed afterwards to overtake. M. Villecholle infers from his experiments that it is better to proceed by immersion in the hydrosulphite, at the time of the development, and he thinks that owing to this treatment, so extremely simple, that in every case it will be possible to use the ferrous oxalate.—*Moniteur*.

NEW SYSTEM OF PHOTOGRAPHY WITH PHOSPHORESCENT PLATES.—Prof. Jenger describes a curious kind of star portraits. He exposes a plate for a short time in a telescope, which is spread over with Balmain's coloring dye, then he lays it upon a gelatine plate, and allows it to remain there for quite a while. The parts affected by the light send out light themselves and affect the plate. In the development this produces a negative. Possibly this remarkable kind of portraiture may be put to use in some other direction.

ACTION OF LIGHT UPON A SOLUTION OF CHLORINE IN WATER AND UPON HYPO-

CHLORITE OF LIME.—German chemists have found that when a solution of chlorine gas in water is exposed to solar light, this element is divided between the hydrogen and the oxygen of the water, giving rise to the production of hydrochloric and chloric acids, and at the same time to the liberation of oxygen. As soon as all the free chlorine has disappeared the displacement of oxygen ceases; the liquid then contains hydrochloric and chloric acid. Nevertheless, these two bodies cannot exist together, as it is known they yield free chlorine and water. For some time back it has been recognized that solar light decomposes chloride of lime (hypochloride). It was in 1857 or 1858, that a bottle of chloride of lime, emery stoppered, and exposed to the solar rays on a shelf in my laboratory (then in Paris), exploded owing to the liberation of oxygen under the action of the light

GELATINO-CHLORIDE POSITIVE PAPER.

—The paper prepared by Messrs. Ashman & Offord is coated after thorough desiccation with the following mixture:

Gelatine, white and hard	. 5 oz. 2 drs.
Chloride of Ammonium	. 1 oz.
Citrate of Soda	. . . 5 drs.
Phenol	. . . . 17 minims.
Water	. . . . 32 ozs.

Aniline Violet, sufficient to obtain the desired tint.

It is applied at a temperature of 85° to 95° centigrade (186° to 203° Fahr.), which is obtained by means of a water bath. A good paper is used, that of Rive for example, but it must be hardened by passing it between rollers. Finally sensitize in a silver bath as customary.

A QUESTION OF CONSCIENCE.

WE have received the following interesting communication:

—, June 2, '86.

MR. E. L. WILSON:

DEAR SIR: We have lately formed an amateur photographers' society in this town, with some twenty members. At our last meeting the secretary, Mr. Skinner, announced that he had written to the editors of several photographic journals, asking

that they send the society, free, a copy of their respective periodicals. Some of them, he said, had sent the journals; others had not given any response, and from the editor of one, which I of course will not name, a letter of refusal had come. He therefore moved that any member of the club now taking this journal write and stop his subscription. At this Mr. Wright, who seems to have a permanent lien on the club's medal, contested monthly, for the best work by a member, rose and objected. The journal named, he said, was one of the most valuable and reputable of the lot, and every member ought to have it. He moved, as a substitute motion, that the club take and pay for five copies. A lively discussion arose, and the matter was finally laid on the table. Meanwhile, I venture to write to ask your opinion on the subject, inclosing a copy of the letter. . .

The last reads thus:

MR. V. V. SKINNER:

DEAR SIR: Your letter asking a gratuitous copy of our journal for the ——— A. P. Society, is received. I fail to see why we should be expected to contribute the subscription price of our periodical, a technical journal which depends for support on a limited class of patrons, to your society. You do not expect the dry-plate manufacturer to send you a few boxes free; yet there is no distinction. We, like him, are following a business, and on business principles. Why should we aid in supporting the societies, rather than they us? Your members are unusually constituted if they will buy what they can get for nothing; one free copy in your club-room may lose us five subscriptions.

You know we are always ready to help amateur and professional, and have many a time done so, by a word in our columns and by personal labor. Must we give charity too, where it is quite unneeded?

Very truly yours,

[We would prefer to express no opinion. It may be said, however, that there is a great difference in the aims of photographic journals. All doubtless are published for the progress of the art and in the interest of its followers more or less. But some are put

forth largely also for the progress of the firms that control them, and in the interest of the sales of their goods. The difference, though palpable, is often not enough observed. Of course it is an act of generosity to send free any magazine to a club of amateurs, but should not the amateur independently insist upon paying cash for what he gets?

We may merely remark in concluding, that the Manchester Photographic Society sends every member a copy of the *British Journal of Photography*, it being part of the membership perquisites.

The Photographic Society of Philadelphia has subscribed for THE PHILADELPHIA PHOTOGRAPHER for twenty-three years, and always pays in advance.—ED. P. P.]

CORRESPONDENCE.

A WARNING TO THE FRATERNITY.

A number of letters having reached me inquiring about studios for sale in this city, and, having no time to answer each separately, I beg leave to avail myself of the use of your valuable journal to warn the fraternity against being too hasty in investing their money *without full inquiry into all the facts*. Beware of misrepresentations! A little outline of the condition of the business here may be of interest to all concerned. Our population is a little over 300,000, very little or no adjacent country population to speak of, very little transient custom in comparison with cities north or east of us, and *having something over forty studios*. Since the "Cheap John" raid in 1881, prices have gradually dropped until now *three-fourths* of the studios are making cabinets from \$2.50 down to \$1.50 per dozen, and other work in proportion. Not over *three* studios are getting more than \$3.00 per dozen. Of course, they are doing the best business. Not over a half dozen are doing what a good photographer would call "a decent amount of business." The number of studios is at least one-third greater in proportion to the business prosperity or traffic than in any other large city. To my positive knowledge, none of the good studios are for sale, and none except those ruined, not by "Chinese cheap labor," but their own. It would be folly to

invest here, and I shall consider that I have performed my full duty if I have saved any one from being victimized. Fraternally yours,

D. BACHRACH, JR.

BALTIMORE, JUNE 6, 1886.

DEAR SIR: Yours of the Jan. 19th in hand, also books and magazines for which accept my best thanks. You may send me regularly *your very valuable magazine*.

I wish people and fellow-workmen would realize the value of books of their profession. Each book, even a poor one, has some ideas which one did not know, and which are profitable.

Yours sincerely,

ODIN FRITZ.

MONTEVIDEO, URUGUAY.

OUR PICTURE.

A THEATRICAL picture comes with this mid-month issue, a scene from the first act of the burlesque "Adonis," at the Bijou Theatre, New York. It represents the studio of the sculptress Talamea, where the marvel in marble was chiseled, the statue-hero of the piece. The antique three graces stand in highly effective contrast to the very modern young woman on the left. Early efforts, more or less after the ancients, decorate the walls "in most admired confusion."

The picture was one of a series taken for a souvenir of the 600th performance, by Mr. Wm. J. Mozart, the artist of the Photogravure Company, of New York. They are one of the best sets of theatrical pictures ever taken, and show what excellent work can be done by the electric light, this being the source of illumination. Three cameras of different sizes were used. At some future time perhaps we may persuade Mr. Mozart to describe in detail the whole method, of work and lighting, which gave such splendid results.

We would like meanwhile to stimulate photographers to try this sort of work. It is now made not only possible but easy by the facility with which the electric light can be arranged for in theatres and similar buildings.

The prints were made for us by the Photogravure Company, 853 Broadway, New York, by their gelatine process, and are on "China gloss" paper instead of on matt

surface paper. The color chosen is very appropriate to the subject. Refer to the article which follows on "Photo-mechanical Printing a Means of Making Money for Photographers."

It is announced that an influential committee is now organizing in Glasgow, Scotland, a photographic exhibition at which it is intended to show, not only *ordinary prints*, but especially to furnish illustrations of the *technical applications* of photography, as well as specimens of the important facts of photographic history. It is under the auspices of the city of Glasgow itself that this exhibition will be held during the summer.

PERTAINING TO THE



IN Mr. D. R. Clark's red, white, and blue address, one of his pun-niest parts was spoiled by an uncorrected proof being sent us for our "copy." It should not be lost to our readers. Therefore, please read thus:

ENTERTAINMENTS.

Our "Mound City" fraternal friends have made generous and ample provisions for a royal good time, and Thursday will be the day to remember as "Field Day." With the "St. Louis Soda Developer" for our dry p-a-lates, and our holders Cram (er) full—Anthony's Detective (camera) will be employed to *preserve* the dignity of the Association, and *shadow* every subject not in "full dress" (P. A. of A. badge). The invitation and conditions are officially accepted by the executive committee.

Adieu! We are in St. Louis for the next few days. Hope to tell you all about it—on time.

Main Entrance

Treasurer's Office
Office of President
Secretary

Philadelphia
Photographic
M. Lewis
Photographic
Philadelphia
Philadelphia
Philadelphia
Philadelphia
Philadelphia
Philadelphia

Entrance to Art Gallery
Photo Exhibition

Anthony's
Bulldozer
Photographic
Journal
Photographic
Photographic

Block Dept.

RULES AND REGULATIONS GOVERNING THE PHOTO STOCK DEPARTMENT OF SEVENTH ANNUAL CONVENTION

TO BE HELD AT EXPOSITION BUILDING, ST. LOUIS, MO., JUNE 22d TO 25th, INCLUSIVE, 1886.

- 1st. Only exhibitors holding space can do business at the Convention.
- 2d. All floor and wall space for exhibits of photographic requisites will be fifteen cents per square foot.
- 3d. No person can sub-let space.
- 4th. All exhibits must be in place on the evening of June 21st.
- 5th. Exhibitors must be in place on the morning of June 22nd.
- 6th. The Art and Stock Departments will be closed from 9 A. M. to 12 M., to secure a full attendance at the meetings.
- 7th. All bills for space must be paid June 23d.
- 8th. No signs will be allowed in the hall larger than three feet in any dimension.
- 9th. Any one not complying with the above rules will not be allowed in the exhibition.
- 10th. Exhibits must be directed to Exposition Building, St. Louis, Mo., care of R. Hencke, Local Secretary F. A. of A.
- 11th. Exhibits must be directed to Exposition Building, St. Louis, Mo., care of R. Hencke, Local Secretary F. A. of A.
- 12th. All applications for space must be made before June 12th, to H. McMichael, Buffalo, N. Y., Secretary F. A. of A.

No. 11
KNAPP & CALDWELL,
PHOTO ACCESSORIES,
JERSEY CITY,
N. J.
520' SQ.

No. 12
ST. LOUIS DRY PLATE CO.,
ST. LOUIS
MO.
330' SQ.

No. 13
SEAVEY
BACKGROUNDS
NEW YORK.

No. 14
ALLEN BROS.
DETROIT, MICH
250' SQ.

No. 10
W. J. BRYANT
BACKGROUNDS,
LA PORTE,
IND.
992' SQ.

No. 1
E. & H. T. ANTHONY & CO
NEW YORK
960' SQ.

No. 2
J. C. SOMERVILLE,
ST. LOUIS, MO
900' SQ.

No. 15
A. M. COLLINS
SONS & CO.,
PHILADELPHIA, PA.
250' SQ.

No. 9
1182' SQ.

No. 8
SMITH & PATTERSON,
CHICAGO, ILL.
500' SQ.

No. 3
H. A. HYATT,
ST. LOUIS, MO.
500' SQ.

No. 16
G. CHAMER,
DRY PLATES,
ST. LOUIS, MO.
200' SQ.

No. 7
BWEET & WALLACK
& CO.,
CHICAGO, ILL.
300' SQ.

No. 6
BLAIR & PRINCE
BOSTON, MASS.
AND
CINCINNATI, O
280' SQ.

No. 4
ROCHESTER
OPTICAL CO.,
ROCHESTER N.Y.
300' SQ.

No. 17
N. LIEBER
& CO.,
INDIANAPOLIS
IND.
196' SQ.

No. 5
MALLINCKRODT
CHEMICAL CO.,
ST. LOUIS, MO.
280' SQ.

No. 28
WEBER & CO.,
ST. LOUIS, MO.
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No. 27
GEORGE MURPHY,
NEW YORK.
176' SQ.

No. 18
JOHN CARBUTT
DRY PLATES,
PHILADELPHIA, PA.
196' SQ.

No. 26
W. H. WALKLEY
& CO.,
PHILADELPHIA, PA.
176' SQ.

No. 25
176' SQ.

No. 19
W. D.
OATHELL,
LOUISVILLE,
KY.
196' SQ.

No. 24
176' SQ.

No. 23
176' SQ.

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ST. LOUIS, MO.
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EAGLE DRY PLATE CO.
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960' SQ.

No. 2
J. C. SOMERVILLE,
ST. LOUIS, MO
900' SQ.

No. 15
A. M. COLLINS
SONS & CO.,
PHILADELPHIA, PA.
250' SQ.

No. 9
1182' SQ.

No. 8
SMITH & PATTERSON,
CHICAGO, ILL.
500' SQ.

No. 3
H. A. HYATT,
ST. LOUIS, MO.
500' SQ.

No. 16
G. CHAMER,
DRY PLATES,
ST. LOUIS, MO.
200' SQ.

No. 7
BWEET & WALLACK
& CO.,
CHICAGO, ILL.
300' SQ.

No. 6
BLAIR & PRINCE
BOSTON, MASS.
AND
CINCINNATI, O
280' SQ.

No. 4
ROCHESTER
OPTICAL CO.,
ROCHESTER N.Y.
300' SQ.

No. 17
N. LIEBER
& CO.,
INDIANAPOLIS
IND.
196' SQ.

No. 5
MALLINCKRODT
CHEMICAL CO.,
ST. LOUIS, MO.
280' SQ.

No. 28
WEBER & CO.,
ST. LOUIS, MO.
176' SQ.

No. 27
GEORGE MURPHY,
NEW YORK.
176' SQ.

No. 18
JOHN CARBUTT
DRY PLATES,
PHILADELPHIA, PA.
196' SQ.

No. 26
W. H. WALKLEY
& CO.,
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176' SQ.

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No. 20
SEED DRY PLATE CO.,
ST. LOUIS, MO.
376' SQ.

No. 22
EAGLE DRY PLATE CO.
NEW YORK.
176' SQ.

No. 21
EASTMAN DRY PLATE
AND FILM CO.,
ROCHESTER, N. Y.

No. 19
W. D.
OATHELL,
LOUISVILLE,
KY.
196' SQ.

No. 24
176' SQ.

No. 23
176' SQ.

No. 2
J. C. SOMERVILLE,
ST. LOUIS, MO
900' SQ.

No. 10
W. J. BRYANT
BACKGROUNDS,
LA PORTE,
IND.
992' SQ.

No. 1
E. & H. T. ANTHONY & CO
NEW YORK
960' SQ.

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PHOTO-MECHANICAL PRINTING A MEANS OF MAKING MONEY FOR PHOTOGRAPHERS.

IN these days of pictures and picture books we become so accustomed to seeing beautiful things that we scarcely give their production a thought. And we photographers, who, as a rule, are as much on the alert as any one for chances to make money, allow the opportunities offered by the many processes which have grown from our art to go right on in the work of picture making, directly under our noses, without turning a stone to make them profitable to us. We presume it has scarcely entered the minds of more than a very few of our readers, when looking at the beautiful photogravure, gelatine, and Moss-type prints which have embellished our middle month issues, that all of these processes could, by the exercise of some enterprise and industry, be made to add considerably to their revenue every year, and more and more as the years roll on. Moreover, it could be done with such comparatively little labor, and without any increase of capital stock. It seems really wrong that the matter should be neglected as it is.

The very fact that pictures are used so much for illustration, and advertisement and display, is reason enough for urging upon photographers the importance of adding photo-mechanical printing work as an adjunct to their business. A business can be created for it in almost every direction. We need not mention examples. One can scarcely turn to buy a hat or a match-safe without being shown the various patterns photo-printed. Should you not have a share in all this? Should you not, in these days when your prices have been clubbed down to low grade, seek some opportunity for "getting square?"—try the means that are offered you?

We were led to these thoughts more recently by a visit to the magnificent works in Brooklyn of the Photogravure Company, whose office is at 853 Broadway, New York. Our conclusion was, when making our departure from the works, that we had not yet done our whole duty to our patrons in bringing fully to their notice the wonderful

power which awaits their bidding. We know you are ignorant concerning it. Likewise and more so is the public. Here are the means. There is the public. It is for you to bring the two together and to catch the resulting revenue. We are surprised, we say, that more of this is not done. We are still more surprised at the ignorance that exists among our own readers as to the various processes available, and as to the difference between them.

A word or two of history, and then we will try to throw some light on the subject.

As far back as 1839, almost contemporary with Daguerre, a chemist in Bristol, England, Mr. Mungo Ponton, discovered that sized paper, treated with a bichromate, say potash, was sensitive to the action of light, the result or effect of which was to render the sizing which the paper contained insoluble. Upon this nail hang all the photo-gelatine processes. Later on, in 1855, Mr. Poitevin discovered that bichromatized gelatine, when acted on by light, possessed the properties of a lithographic stone, and might be used as such for printing from.

From that time on, modifications and improvements have been made by the ingenious ones of our craft, including Mr. Ernest Edwards, the President of the Photogravure Company, until most astonishing and beautiful results are obtained at remarkably low prices; not only in black and white, but in colors, and with or without India tint. We need not go further with history. You have the beginning. You have had the processes in our pages from time to time. The perfect results are before you every day of your life, and will continue to be presented to you in our middle month issues. A number of years ago some of the sanguine parties who were interested in the sale of some of the processes endeavored to persuade photographers to believe that photo-mechanical printing would soon supersede silver printing. We opposed that sort of doctrine as impractical, and received much abuse and ridicule for doing it. Subsequent history has proven, however, that our judgment was correct. Up to this day, photo-mechanical printing is no nearer being available as a substitute for silver printing than it was ten years ago. But it has, in

good hands, gone right on making a way for itself—creating a want for it, as it went on, until now, while in no sense a substitute, is capable of becoming, as we have already said, a most useful and important helper in every ordinary photographic business. Of course, it must be offered. Business don't come, in these days of rapid competition. It must be sought, pushed after, and hauled in.

And these are the ways: The ordinary illustrations, such as you see in the daily papers, and of better quality in our own and other magazines, are photo-engravings. First, the bichromatized gelatine picture of proper strength or depth. From this a plaster cast is made; from that again a type-metal cast, which, after mounting on wood, may or may not be electrotyped and printed from.

The next best result is by the new and beautiful processes of the Moss Engraving Co., by Mr. Ives, or Mr. Meisenbach, and others.

Similar results to these are produced by the Photogravure Co., by means of the cheapest process of the many they work, known as

Photo-Caustic Printing.—By this method the photographic effect is produced from stone. No attempt is made to produce engraved plates for printing with letter press, but the printing is done by the Photogravure Co., and by this means greatly better results are obtained than where plates are made and placed in the hands of the ordinary printer. The results are not as good as those obtained from gelatine or by photogravure, but they are sufficiently good for a number of purposes where the quality of the higher grades of work is not necessary. It is applicable to all the purposes of the other processes, but is lower both in cost and quality.

Photo-Lithography.—The results of this well-established process are well known. It is the oldest of the photo-mechanical processes but is only adapted to the reproduction of original drawings or engravings which are made in a black or other non-actinic color on a white or light ground. Photo-lithography is unrivalled for the reproduction of maps, plans, tracings, surveys, patents

and other drawings, engineers' and architects' designs, fac-simile letters and circulars, exhibits in law cases, miniature catalogues, copies of line engravings, reduction or enlargement of line work, but not for half-tone work. For this we must go up another grade, which brings us to

Photo-Gelatine Printing.—The results produced by this process are similar to what is known as Albertype, Artotype, Heliotype, Autoglyph, Phototype, Lichtdruck, etc. The particular method used is that patented by Mr. T. C. Roche, and is believed to give the best results at the least cost. The Photogravure Co. has in this department the best staff of printers in the country, and a most extended experience of the treatment of gelatine for the purposes of printing. All classes of subjects are suitable for reproduction by this process, and it is especially suitable for portraits, views, architecture, art catalogues, scientific and natural objects, book illustration, town, county, and family histories, theatrical and general advertising, reproductions of engravings, machinery, animals, and still life, copies of deeds, instantaneous effects, scientific records, mill labels, etc. An example by this method is Mr. Wyers's "Toilers of the Sea," given in our middle March issue; and another in the "Adonis" Studio in our current number.

But the crowning method of all, what would seem to be the most promising of all, and certainly the best, is

The Photogravure method, of which Mother Shipton and Themasses are examples. By this process the highest artistic effects are produced. Metal plates are engraved (in intaglio) by photography and printed in copper-plate presses. The effects produced by photography may be altered by the hand of the artist, values may be increased or diminished, and almost any omission or addition made. The work may be carried on till the desired effect is produced, and the edition is always uniform. The plates can be supplied when desired, or the Photogravure Co. will do the printing. The results obtained by the Photogravure Co. equal the best results obtained abroad, and reference to this effect is permitted to leading publishers and artists who have used these plates. All classes of subjects, whether

in half-tone or line, can be reproduced by this process.

But, you hav'nt all these differences clearly through your head as yet, and we hear asked the old, old question, "Why is it not practical for us to do all these things ourselves?" The answer is, that to do them well a very elaborate and expensive plant is necessary, and, while the printing plates could be readily made, very skilled lithograph printers are necessary in order to get good results.

More than ever were we convinced of this, when, conducted by Mr. Edwards, we inspected the works of the Photogravure Co. The capital involved must be immense, and the capacity unlimited. All the methods were in full blast, from the preparation of gelatine to the careful pulling of the sheets from the wonderful photogravure plates. Great steam-presses were pushing off other prints also with the same ease and smoothness and uniformity of result as the newspaper press.

There seemed to be a sort of creation business going on. Given a stone or a metal plate upon which scarcely any image could be seen. The ink is carefully rolled thereon, and a clean, white sheet laid down. The pressure is applied, the sheet removed, and lo! what a metamorphosis!—"a thing of beauty and a joy forever," to go out into the world, there to fulfil its mission for ornament or for use, or for both.

We think we are safe in saying that no other company is able to reproduce prints in colors like the Photogravure Co. To the variety there is no limit. The prints may be made upon wood, paper, or the finest satin with equal facility, the finer the material, the finer the quality of the picture.

Our duty is now done. It should be a source of congratulation that the humblest photographer in the land may, as he makes and gets opportunity, supply these splendid results with the same facility and at the same price as the capitalist photographer, because all have the advantage of a share in the tremendous working plant of the Photogravure Co.

The business is before you, just as much as the lovely statue lies at the feet of the sculptor in the block of marble. Chisel away prejudice and lack of enterprise, and

study from the models carefully, and success is yours.

THE SOLAR SPECTRUM OF 1884.

THE remarkable "red sunsets" of the year 1884 are well remembered. Our friend, Prof. C. Piazzzi Smyth, the Astronomer Royal of Scotland, observed them with interest and speculated on their cause, until the summer time was afforded for investigation. With his spectroscopic apparatus he fled from the smoke of Edinburgh to the sunny town of Winchester, set his heliostat, in a window, and day after day took careful observations. The result is a handsome book, a copy of which lies on our desk.

Three series of observations were taken, and a complete map of the lines seen plotted from each. The scale is large—such that the entire spectrum would measure nearly fifty feet. With them are compared Kirchhoff's map of 1868, and Fizez's of 1882. The maps were drawn by hand. The instrument used was a Rowland diffraction grating spectroscope.

The book is most valuable to spectroscopic students, and interesting results may be expected from the working up of the data it gives.

In a notice of Prof. Smyth's spectrum, made by a London contemporary some weeks ago, the editor alluded to it as being a photographic one, but such it is not. The learned professor writes us in his last letter as follows: "My spectrum is not only an entirely eye and hand drawn one, but my very reason for preferring it in that way was that Prof. Rowlands, of Johns Hopkins University (one of whose inimitable diffraction gratings I used), has just completed so entirely a go-ahead excelsior photo-spectrum, that no one else need expect to do anything better in that line for a generation, if then. It will be the solar spectrum for the present age for all points, and there are many, wherein a photographic image is better than fleeting human vision and fallible finger-work."

In the many years that we have been a student and a disciple of "light," we have seen nothing of its kind so grandly beautiful and perfect as Prof. Smyth's spectrum.

After all it has advantages over the photograph. An Isochromatic spectrum will come next.

QUERIES, CONUNDRUMS, AND CONCLUSIONS.

SINCE my reply to Mr. Townsend, I have received a letter from him with two prints enclosed: one from the original negative, and one from negative made by contact. They seem to be very much alike—only no reverse. I did not believe it could be done, and in justice to Mr. Townsend I have experimented a little in the same direction. I am satisfied now that a negative can be made by exposing a dry plate in contact with a negative. The result of such, I send. It is obtained by overexposure and developing a long time. I tried some twenty plates before I accomplished it, but I know that it can be done. What think you of it? It appears that nothing is impossible in photography. Yours truly,

A. M. ALLEN.

POTTSVILLE, PA.

The result Mr. Allen sends us is very curious. The duplicated negative is a little harder than the original, and presents somewhat of a mezzo-tint effect. It proves a curious fact, but is of no practical value. See other allusions.—ED. P. P.

THE getting of a negative instead of a positive on a dry plate, exposed under a negative, is noted in *Vogel's Progress of Photography*, and other works. It is called the reversal of the image or "solarization."

If a dry plate is exposed for a fraction of a second to the daylight under a negative, the result will be a positive. If the exposure is longer the positive is flat, and some of the high lights are broader. But if the exposure has lasted three or four seconds the result is a nice negative, especially if the developer used is a little old or weak, and the plate very sensitive. I have often seen this.

JOSEPH DORELLA.

R. GALLOWAY: You are correct, "no dark-room should be without a supply of some ready antidote for poisoning."

M. Bellini, of Florence, advocates the use of iodide of starch as an antidote for poisons

in general, and, as it has no disagreeable taste and is free from the irritating properties of iodine, it can be administered in large doses; also, without fear in all cases where the poison is unknown. It will be found very efficacious in poisoning by sulphuretted hydrogen gas, the alkaloids and alkaline sulphides, ammonia, and especially by alkalies, with which iodine forms insoluble compounds; and it aids in the elimination of salts of lead and mercury. In case of acute poisoning an emetic is to be given before the antidote is administered.

SAMUEL AIKEN wishes to know our "private formula" for working the enamel and brilliant albumenized papers sold by Mr. G. Gennert, New York. Over and over again we have assured correspondents that *we have no "private formula."* What we know is yours. You are welcome to ask for it whenever you cannot find it, and you will be informed cheerfully.

The formula asked for, and found best in our hands, is the one which is supplied by the dealers, as follows:

Sensitizing Bath.

1 oz. Nitrate of Silver	} Filtered.
8 oz. Distilled Water	

Float $1\frac{1}{2}$ to 2 minutes.

Toning Bath.

Prepare and filter the following two solutions

- 1.—20 grains Powdered Borax.
- 12 " Re-crystallized Acetate of Soda.
- 6 " Bicarbonate of Soda.
- 2000 " Distilled Water.
- 2.—2 grains Chloride of Gold.
- 100 " Distilled Water.

Mix the whole of No. 1 with 60 grains of No. 2, and reserve half of this mixture for the next day; when it should be mixed with an equal quantity of the newly prepared gold bath.

All baths to have an even temperature of about 75 degrees.

Sensitized sheets and washed prints should not be allowed to get quite dry, and it is advisable to mount the latter when still moist.

Before sensitizing, the paper should be kept in a slightly moist place.

A "YOUNG LADY AMATEUR" wants to know the "meaning of the words 'part' and

'atom,' *i. e.*, how much quantity does each represent?" Well, "*a part*" may mean—just what it says, and any quantity—a quart, a pint, an ounce, or an atom.

An atom is quite a small affair, but of big importance. The atoms of hydrogen at the temperature of freezing water are estimated to move seventy miles a minute, and suffer 17,000,000 collisions in a second. That is, the direction of the motion of the hydrogen molecule must change 17,000,000 times a second. How difficult it would be to find out where one of these little fellows was after it had the start of you a few minutes! In air the collisions between the particles of oxygen and nitrogen in a second are about 8,900,000, and their average velocity is about 18 miles a minute. In one cubic inch of air it is estimated that there are 300 quintillions of particles (3 with twenty ciphers after it), and each of these flying particles changes its direction about 8,900,000 times a second. But even then the cubic inch of air is by no means full, for the particles have a free space to move in between the collisions of from 6-10,000,000 of an inch. Sir William Thompson has just published a calculation by which he shows that the average size of an atom is not less than six and not greater than sixty billionths of a cubic inch. Hence, in spite of the number of them in a cubic inch of air, the space is but partly filled.

It would require a good many to develop an over-exposed negative.

"SOUTH JERSEY" says the mosquitos are already beginning to "make Rome howl" in his quarters, and "although not photographic, can you tell me how to fix the foe?"

A bottle of bromine left in a closed room all night with the stopper out destroys all infection and insect life. It is far more effectual than the vapor of burning sulphur; but look out for your dry plates when you use either.

The following is recommended as a good disinfectant: Oil of rosemary, 10 parts; oil of lavender, $2\frac{1}{2}$ parts; oil of thyme, $2\frac{1}{2}$ parts. Mix with water and nitric acid in proportion of 30 to $1\frac{1}{2}$. Shake the bottle before using, and saturate a sponge, which should be left till the liquid evaporates. The vapor which arises possesses wonderful deodorizing properties.

PUBLIC AND PRESS RECOGNITION OF PHOTOGRAPHY.

THE readers of THE PHILADELPHIA PHOTOGRAPHER of ten and twenty years ago will acknowledge how hopefully and believingly we predicted a great future for the art that we were all struggling to uphold and improve. And that too, when the prospects looked anything but brilliant. And is it not the fact that our predictions are verified a little every day? We are led to this thought by the following which we clip from the *New York World*:

"*Ladies Out-door Sports.*—The season of out-door pastimes is now upon us, and many are divided in their minds as to what form of recreation yields the best returns for the investment made. Suffice it to say that in the more refined and cultured circles photography has a rapidly increasing *clientèle*, and lady amateurs are found whose work rivals the proudest achievement of skilled professionals in the ranks of the sterner sex. Landscape photography affords broader scope for the exercise of taste and artistic perception than any other field except that of landscape painting, and we naturally find that ladies of cultured, æsthetic tastes eagerly embrace and speedily become enamored of a pastime which combines refined pleasure with healthful recreation.

In England the members of the royal family spend much time in the prosecution of amateur photography, and, in fact, no English lady's education is considered complete unless amateur photography be numbered with her accomplishments.

In this country ladies are doing very earnest work, and have become so expert in some instances in the various manipulations of light and chemical effects as to furnish new processes and formulæ which have become of permanent value to photo-science.

One of the latest votaries of this fascinating outing is Mme. la Marquise de Mores, whose fame as a horsewoman and huntress is widespread. After gracing some of the most brilliant balls and gatherings of the élite of New York, she left with her husband for their ranch in Dakota, after having provided herself with an amateur outfit of photographic requisites at the well-known

photo-supply house, the Scovill Manufacturing Company, who publish the *Photographic Times*. Here she met and received instructions and suggestions from the young and enterprising editor of said journal, Mr. W. I. L. Adams, who found her keenly intelligent and apt in all the *modus operandi*, owing doubtless to the fact that she is an expert draughtswoman and landscape painter. She now proposes on her hunting trips, in all cases where it is possible to do so, to shoot her game with her camera before bringing it to earth with her rifle."

Here is prophesy fulfilled with a lot between the lines. First it tells of the favor with which our art is met by the press, then of the acceptance it is meeting on the part of the public; again, of the uses to which it is being applied; still again, of its good services in providing a means of pleasure and health to our daughters and sweethearts, and wives, and the mothers of our land; and, though by no means last and all, of the fact that a young and wise generation is growing up to receive photography from our hands to lift it higher and higher as we depart. And last, is it not inclining public opinion more and more toward the practical photographer, and, as a result, increasing business?

(Translated for the Philadelphia Photographer.)

DEVELOPMENT OF INSTANTANEOUS NEGATIVES WITH CARBONATE OF SODA.*

BY M. BALAGNY.

THE process that I am now about to describe was used by me on extra rapid flexible plates, made by M. Lumiere, whose preparations of pellicular paper, glass plates, and flexible plates, vie in rapidity with any made in France or anywhere else. I used my quickest drop, or rather my quickest drops, sometimes the one made by M. Frangais, and sometimes that of M. Dessoudeix.

To develop an instantaneous negative 13 x 18 centimetres ($5\frac{1}{2} \times 7\frac{1}{4}$ in.), I place in a glass 60 grammes (2 oz.) of water, and add immediately, and without taking the trouble to measure, from 5 to 10 c.c. ($1\frac{1}{2}$ to 3

drachms) of a 20 per cent. solution of sulphate of soda; I also add to this about 20 c.c. (6 drachms) of a solution in water of crystals of ordinary carbonate of soda (but free from sulphate of soda), this solution should be at least 20 per cent., even 30 per cent. would not be injurious. It is said that too much carbonate may cause the film to rise; this may be possible in the case of glass plates, although it has never happened to me; but in any event this will not happen with flexible plates, whose superimposed films offer very great resistance to the development and very great solidity. The alkaline mixture thus made in the glass, I throw over the plate allowing it to remain two minutes in order that the gelatine film should become completely saturated. After two or three minutes, I place at the bottom of my glass, which is now empty, 10 centigrammes (3 drachms) at least of a solution of pyrogallie acid in alcohol:

Alcohol at 40°	.	.	.	23 grains.
Pyrogallie Acid	.	.	.	3 drachms.

To mix intimately, I pour into my glass, over the acid that is there, the alkaline solution which is in the dish, and I cast anew the whole over the negative. In a very short time, even with the shortest exposures, the high lights appear, and after which the details; by agitating continually the dish, the negative covers itself by degrees in all its parts. Be careful especially not to look at it too soon by withdrawing it from the bath which is in its *first action*. In this state the reducing action goes on with much more energy than if you were to stop this action by withdrawing your negative from the bath to look at it by transparency, to again take it up replunging the negative into a dish. Have, therefore, the patience to wait, before looking at your negative for the first time by transparency, until, by reflection, it seems to be cloudy, as it is called, even in the whites, and I may add especially in the whites which will be the shadows of the positive print. In a word, do not stop the first action of the bath, it is the best. A time will come when you will see that the action is stationary, then look by transparency; if the whites are wanting in detail, add to the bottom of the glass some carbo-

* Paper read before the French Photographic Society.

nate without bromide, mix by pouring on this carbonate the liquid which is in the dish and throw the whole over the negative. The details are made to appear by the successive additions of the carbonate. When all the details have appeared it is *always* necessary to intensify your negative, which, in coming from the hyposulphite would be too weak. For this you put in your glass from 5 to 10 c.c. ($1\frac{1}{2}$ to 3 drachms) of pyrogallic acid, mix with the liquid of the dish and throw over the negative. In an interval of about two minutes you again put in the glass from 5 to 10 c.c. ($1\frac{1}{2}$ to 3 drachms) of the carbonate solution, you again mix with the remainder of the bath and throw over the negative. By these two successive additions the negative is progressively intensified; with a little patience, if the intensity does not appear to be sufficient, you can increase it by alternating the solutions of pyrogallic acid and carbonate of soda. I generally finish with the carbonate. Now wash in two waters, pass in the alum bath, and fix. Do not fear to make use of the sulphite, as it is this substance that gives the beautiful tones of the negative; if you have the least coloration it is because there was not enough sulphite. You must use enough, but not too much, as it is said that it retards the development. I do not use bromide for instantaneous negatives made at Paris at this time of year; but at the seashore, for example, where the light is excessive, and, in all cases in which you may judge that the light has been too strong, it is necessary to add to the first mixture of water, sulphite and carbonate from 5 to 10 drops of a 10 per cent. solution of bromide of ammonium.

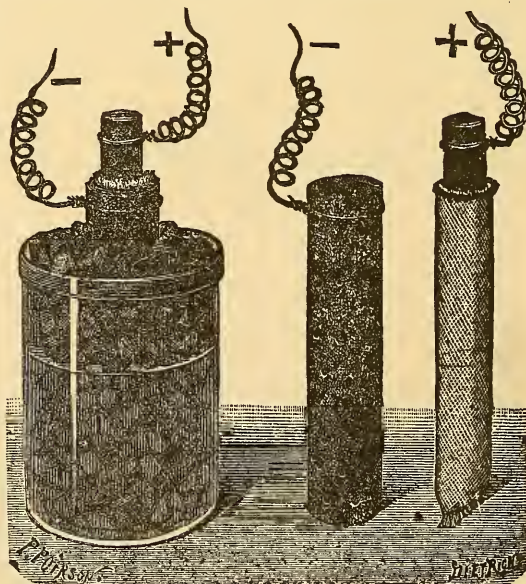
In the above formulæ the persons who are accustomed to using carbonate of potash can use carbonate of soda instead. With preparations of gelatino-bromide of great rapidity, it is possible, with the above development, to give to an instantaneous negative the same brilliancy and the same

intensity as one that is not instantaneous. Although I have always been a partisan of these last, I begin to think, and this is the conclusion to be drawn from this paper, that all possible subjects, at least those suitably lighted, may be taken instantaneously.—*Moniteur.*

(Translated for the Philadelphia Photographer.)

CARBON ELECTRODES WITHOUT METAL.

THOSE persons who make experiments with electricity combined with light, will learn with pleasure that M.M. Tommasi and Radiquet have just constructed an entirely new and curious pile differing from all others from the fact that no metal is used; a recipient, some carbon, two chemical products found everywhere, and we have the element of a pile. The invention of this pile dates back about a year, but it was then cumbersome in shape, inconvenient, and, therefore, not practical. To-day this defect has completely disappeared. After a number of experiments the inventors have adopted the following type: In the centre of a cylin-



dric glass vessel is a stick of carbon, covered on the lower part with a paste of peroxide of lead, which is protected by a

cotton covering, as is seen on the right of the cut under the sign +.

The positive electrode thus prepared is inserted into a carbon tube pierced with holes, designated in the cut by the sign —. This tube forms the negative electrode. The space comprised between this last, and the glass vessel, is filled with coke broken into small pieces. To put the pile in operation it is only necessary to fill the vessel two-thirds full with a saturated solution of chloride of sodium (common salt). The force of this element is about 0.6 volt.

How long will this pile last? We cannot say, but we can state that we have had in use for six months a battery of this kind which works regularly and gives no sign of exhaustion. When its energy is spent a few cents will be sufficient to renew the peroxide and the liquid, giving to the pile new life. As is seen, this new pile is both simple and curious, but it also possesses other merits. We may mention among others that of not giving rise to the formation of creeping salts, which are so objectionable in some kinds of piles. Moreover, it does not oxidize the screws, which is a very important feature. If allowed to dry, the simple addition of water to its elements will restore its activity without any repairs or cleaning.—DR. D. TOMMASI and M. RADIGUET, in *Moniteur*.

[Many of our readers who have a genius for such things will arrange this apparatus for lighting their dark-rooms, of course, under proper color protection.—ED. P. P.]

THE HUMOR OF IT.

AN absent-minded dentist who, in addition to teeth pulling also took off heads, was called upon to pull a tooth for a young bride, who "preferred to take the gas." Upon presenting the nozzle du nitrous oxide to the nervous lady he said, "Now just keep your eyes about there, and try and look pleasant, please."

LUKE SHARP, the out-of-focus man of the *Detroit Free Press*, says: "While I was in London I saw, at the rooms of the Eastman Company, in Soho Square, an exceedingly fine camera which had been made in America for the Prince of Wales, by the

American Optical Company of New York." It *was* kind of funny, wasn't it, when they have so many camera makers in London?

TAKING photographs in London is now called "Fogography."—MOZART.

AMACHOOR TO STOCKDEALER.—"Ah! Have you pyro in capsules that one can use without hurting the solution, don't chew know?" Dealer: "No, but we have pellets to be used with brains, though."

Photographer: "Well, Mrs., have you come to order another of our beautiful life-sizes of your deceased husband?"

Widow: "No, sir, not exactly. We could not bear to show this one to our friends since Mr. Caruthers died, until lately. And now, as we go into second mourning next week, I came to ask if you would exchange it for a black and white one? Everybody thinks the colors are in bad form now. It is just as good as new."

PHOTO-RIVAL OF THE TELEPHONE.

PROF. ALEXANDER GRAHAM BELL, and his cousin, Dr. Chichester Bell, have recently made a very remarkable discovery, which they think is quite as important as the transmission of the tones of the human voice through the telephone. They have discovered that a falling jet of water or a flame of gas burning in a room reproduces every word spoken and every sound uttered within a given distance. When two people join in conversation in a room in the evening the gas which burns above their heads repeats every word they say, and sounds uttered in the vicinity of flowing water produce vibrations.

To a reporter of a local paper Professor Bell showed a glass disk, upon which appeared a spiral streak composed of tiny little shade lines, placed together or farther apart to make up the variation of intensity. The surface was one of depression and elevation. This, Professor Bell said, represented sound waves. When the plate was revolved upon a pivot, and the depressions and elevations conveyed to the ear by a microphone, there was a repetition of the conversation then

recorded as distinct as when it was delivered. The undulate surface representing sound waves was produced by photography. Professor Bell says that if any one will go to a water-pipe and turn on the faucet so that the water will fall in a stream to the ground, that water can be made to report the conversation taking place in its presence, and a stream register every sound within hearing of it.

Professor Bell considers this discovery quite as important as that of the telephone, and his cousin, Chichester Bell, has gone to Europe for the purpose of bringing it before scientific men in England and on the Continent. Patents have already been obtained in all the principal countries of both continents. The great object of the inventors was to record by photography or otherwise the vibrations in the jet of water which correspond to sound waves, the result of words spoken in the vicinity, to keep the voice on record, bottled up, as it were, for any length of time, and then, when called upon, to let the record speak. This, Mr. Bell says, has been accomplished. The water, or liquid of whatever kind it may be, is colored with bichromate of potash. If it were perfectly clear it would not answer, because the light used in photographing would pass through without resistance and no record would be made on the tablet. The water is colored for photographing, and the jet is made to fall obliquely on a glass plate. The water spreads itself on the glass plate and runs off. It is the water so spread out that is to be photographed as it passes. Words spoken cause the jet of water to vibrate, the vibrations in the jet cause corresponding vibrations in the film of water as it breaks and spreads on the glass plate and runs off. A ray of light is passed through that film and through the glass plate to a sensitive tablet behind. The sensitive tablet receives the impression of every vibration while the speaking continues, the jet keeps running, the film keeps passing over the plate, the recording tablet keeps moving, and the light passing through the film to the tablet makes a record of the speech far more accurate than any verbatim report. These scientists do not consider their invention perfect, but they are at work improving it.

AN ANNOYING STRIKE "OFF."

WHEN the workmen of a factory strike for "more wages," or "less hours," in the midst of "harvest-time," and the employer arranges matters the best way he can to tide over the emergency without any thought of his responsibility to the public and to other manufacturers in his line, that is *one* thing.

But when the employer knowing that by yielding to the unjust demands of a lot of misled workmen, he encourages, nay *causes*, the same sort of a movement in all the other factories, together with an advance of prices to all consumers, and resolutely suffers the stoppage of work at his own factory rather than permit such a calamity, bears the brunt of the battle alone and suffers alone, *that* is *another* thing.

And this other thing is what Mr. W. Irving Adams, the able and popular agent of the Scovill Manf'g Company, has been doing for over five weeks at the works of the American Optical Company. His workmen caught the "strike" infection and were "ordered to quit work." Men who had quietly worked along peacefully and well paid at their benches for over twenty years under their generous head, were obliged to obey the "order" of their "leader," and follow the gang. "Eight hours instead of ten" was the demand. It came unexpectedly, just when the largest amount of unfilled orders were on hand. Then a system of espionage and interference and abuse followed with wearying consultations and threats, and howls from purchasers, and jeers and lack of coöperation and sympathy from competitors. All this did not affect Mr. Adams in his determination to remain firm.

His other factory at New Haven then added its sympathy with the strikers, so that there was a double-strike to contend with. After five weeks of incessant worry and great loss, the strike was declared "off," and the workmen and master are again in harmony, and the cameras and what-not are fairly pouring out in all directions.

It is only fair that Mr. Adams should have his action in this trying time recognized and appreciated. If he had yielded to the demands of the strikers immediately,

so the leaders frankly said, similar demands would have been made in similar factories in New York, Brooklyn, Rochester, Boston, and Chicago, and, as a consequence, the prices of apparatus must advance at least one-fourth. Nobody would *gain* anything except the idle men who lead such outbreaks.

We feel sure then that the whole fraternity will *honor* a man who had the pluck and courage to stand firm between them and a great wrong, and thus save them from a deplorable calamity.

C. S. F. A.—C. S. P.

It would be as presumptuous on our part to explain the great Chautauqua enterprise to our readers as it would be to assure them that the Apollo Belvedere is in the Vatican Collection at Rome. They all know that the Chautauqua Society was a great disseminator of knowledge in our land, and that gradually, like the educational octopus that it is, it is winding within its tentacles all departments of education.

This year it has made preparations for its C. S. F. A., or "Chautauqua Society of Fine Arts," and under competent directorship and teachers is prepared to give instructions in all the departments of art-coloring. The next step is *photography*, and a C. S. P.

We learn that this is a new branch being formed. During the coming season there will be a special photographic day at Chautauqua Lake, with a photographic exhibition, lectures, demonstrations, and entertainments in the usual scale of Chautauqua enterprises.

We shall give more photographic particulars presently. Meanwhile those who are desirous of information concerning the C. S. F. A., with rules and regulations, can at once obtain circulars by addressing Cassell & Co., publishers of the *Magazine of Art*, 739 and 741 Broadway, New York.

WORLD'S PHOTOGRAPHY FOCUSSED.

AMATEUR PHOTOGRAPHY.—Photography, and photographic trade especially, are indebted to amateurs for a number of the important improvements realized during the

last years; and it is with pleasure that we have recorded the success of photographic exhibitions, exclusively of amateurs, which took place last year. To-day it is with no less pleasure that we announce the opening, by the Princess Fredericka, of the second annual amateur photographic exhibition, held April 16, at the Stereoscopic Company's rooms, 103 New Bond St., London. Here are seen more than two thousand prints, of which about one-tenth were made by women. The money realized by the cost of admission and by the sale of prints will be devoted to the benefit of Princess Fredericka's Asylum for Convalescents, at Hampton Court, near London.—DR. PHIPSON, in *Moniteur*.

COST OF MAGNESIUM WIRE.—The journals of chemistry announce that at present there is a notable fall in the price of metallic magnesium, which had varied but little for so many years. It is now possible to buy in London magnesium wire at two and a half shillings the ounce. This is about one-fifth of the price formerly obtained.

SEVERAL years ago, Herr Grasshoff, Berlin, sent a frame to the N. P. A. Exhibition, containing over forty different portraits of one young lady.

A MAN walked into the photograph gallery of Dana Downs, at Riverhead, Rhode Island, a few days since, carrying a child covered with a shawl, and asked to have its picture taken. When ready he removed the shawl, and the child was found to be a corpse. He had walked with it in his arms over twelve miles.

At the Berlin Society, a discussion was held concerning the faint spots which appear on gelatine plates. The cause of these spots was inquired into, and the means of removing them considered. One of the members who had noticed that the spots appeared bright at times, and dark at others, thought that they could be attributed to different causes, the chief one being the greasiness of the gelatine itself. This same gentleman had noticed that the spots appeared on the film like little holes, which spread themselves out, and finally took the form of spots; he stated that he had produced these same spots artificially, *i. e.*, by putting his greasy

fingers on the plates. Mr. Stoll remarked that the same appearance could be produced by particles of dust, and this idea was confirmed by Mr. Redner, who added that it was especially so, when the dust particles contained any fatty or greasy substance; this might occur if a hair from the beard or head fell into the solutions. Mr. Himly strengthened the prevailing opinion by his remarks, and gave as a means of obviating the difficulty, the following receipt: Cook the gelatine in a deep kettle, and draw away from underneath that needed for use, and as fat is, according to the laws of nature, of very light specific gravity, it will remain on top.

Mr. Löescher (of the firm of Löescher & Petsch) presented to the Society a collection of portraits and genre studies. The portraits of large figures in the sunshine, containing a complete blending of shades besides delicate half tones, were of great interest. There were other portraits against light backgrounds. The gift was highly appreciated, and the President expressed in behalf of the Society the warmest thanks.

President Vogel read a letter from Mr. Schwartz, of Königsberg, in which he recommends his untinted backgrounds for portraiture. He states that much of the picturesque effect of a portrait could be produced by a well-shaded background; and he advises those who have not used such backgrounds before to take advantage of these he has to offer, assuring them that their portraits will turn out well, mainly because well-shaded. Hitherto it has been difficult to obtain really useful backgrounds of difficult technique. Accurately painted objects upon backgrounds are mostly unnecessary, in any case they only need to be sketched in a subordinate manner.

TRANSMISSION OF PORTRAITS BY THE ELECTRIC TELEGRAPH.—We know that for some time back it has become possible to send portraits to considerable distances by means of the electric telegraph.

A thief, known to the police, escapes from London, the portrait of this person is sent by the telegraph to Liverpool for example, where he is at once recognized, and arrested before his departure for America. Such is

one of the practical uses that it is hoped will be realized before long. Already patents are beginning to appear. One of the first, and the only one with which we are familiar, is that of M. Gemmill, physician and amateur photographer at Drummare, in Ireland. His system of photo-telegraphy consists in uniting a selenium circuit with another free circuit, giving light to an electric lamp so that when the selenium cell is lighted or shaded, the light of the electric lamp shines or darkens, more or less, as the case may be. The degree of the illumination of the lamp varies with the intensity of the light which falls on the selenium cell, and this lamp becomes thus capable of being used for simple photo-telegraphy for the transmission of photo-telegrams, photo-autographs, drawings, etc. Things are arranged in such a manner that the same intensity of illumination given by the transmitting instrument is exactly reproduced by the one that receives. Postal telegraph wires are used for the purpose, and experiments have been made within a year which promise as much success as has already been obtained with the telephone. Some illustrations of this were given in a recent issue of the *Scientific American*.

PHOTOGRAPHIC IMAGE ON WHITE PINE.—At the Edinburgh Photographic Society, M. Brightman exhibited to the members present, a small and very smooth piece of white pine wood. On this piece of wood he had placed a sheet of black paper, on which the word light had been cut out, and then covered with a glass plate so as to exclude the action of the air. Under these conditions, the whole had been exposed to the action of diffused light for two or three months, and at the end of this time the word "light" was printed on the wood in brown letters.

DOUBLE PORTRAIT ON THE SAME PRINT.—M. F. Laporte, in making these pictures, does not use a shutter, but places his subject on a black ground in an unlighted room or on leaves which are in the shade. The black ground in this case cannot reflect the luminous rays, and the subject well-lighted, stands out from the black background.—*Moniteur*.

Editor's Table.

ANTHONY'S SATCHEL DETECTIVE CAMERA.—The dear public has become so enlightened as to the insinuating propensities of the detective camera as to make it extremely difficult for the "detective" to do its mission undetected. Always equal to such emergencies, Messrs E. & H. T. ANTHONY & Co. have devised a disguised detective camera which they call the "Satchel." A new form of detective camera has been constructed so as to fit within the confines of an ordinary and innocent looking alligator satchel (the alligator being dead), which the tourist can wear strapped to his shoulder in the usual style, thus putting on no airs different from the ordinary and harmless traveller. When his victim approaches a catch is released, a tell-tale finder shows when, a button-touch startles the shutter, and the direful deed is done. It is compact, cute, and cheap. We were shown all the mysteries thereof recently, by Mr. Richard A. Anthony, the inventor. They are explained more in detail in the advertisement. Surely no one can detect you with such a camera.

The Art of Making Portraits in Crayon on Solar Enlargements, published by Mr. E. LONG and sold at this office, has now nearly reached a sale of 1000 copies, and still it sells. We were always in error as to its authorship. It was written by an artist-daughter of the veteran enlarger of Quincy. Miss LONG has been an able and successful teacher in art for several years. We were going to say, *Long may she continue*—but that might not be agreeable.

CHADWICK'S *Magic Lantern Annual*.—A new edition of this capital work has been published by the SCOVILL MANUFACTURING CO. We noticed it favorably when it was first from the press. It is supplied with over one hundred practical cuts, and with a thousand or more hints of a like nature. All the dealers supply it at 75 cents.

MR. ORVILLE C. ALLEN, of ALLEN BROS., Detroit, Mich., arrived in the steamer Westphalia, June 4th, from Switzerland. He has completed arrangements for a more rapid supply of Suter lenses. He called upon us, and was in excellent health and spirits. He will be seen at the Convention. Zwei!

A NEW edition (sixth thousand) of *Wilson's Photographics* has just been issued. It is the best book in which photography is taught. *Photographics* is the best text-book. It is also the hand-book of our art in use everywhere. Five hundred testimonials can be shown. The new edition is supplied with an appendix, bringing things up to date practically.

MR. LULU FARINI, Bridgeport, Conn., the African traveller, gymnast, and photographer, does not think the 8 B Suter Lens too much for his strength and vim, and writes, "I am delighted with my 8 B Suter, and shall enjoy working with it, I know."

LEAVE all your bad blood and little hatchets and things at home when you go to the St. Louis Convention, and join in promoting the welfare of our art. Remember, "*Quem dii vult perire prorsusquam dementit*" (the gods always get mad when they want to destroy anybody), said the sage, but we are neither gods nor sage.

WE are glad to learn in a private letter from Mr. H. P. ROBINSON that his "Dawn and Sunset" will be exhibited at the St. Louis Exhibition, in charge of Mr. J. F. RYDER. Gladder still are we over the close of Mr. ROBINSON's letter, which says: "You will be glad to know that I am much better, and down at the studio at work two months earlier than the doctors predicted."

THE SCOVILL MANUFACTURING CO. have overwhelmed us with their new and immense catalogue, bound in red leather, and our name in gilt letters on the cover. It is royal octavo size, and has 224 pages, nearly doubled by blank leaves suggestively inset for orders and memoranda, between them; a very neat and acceptable affair altogether.

Two new English photographic journals have come before the craft from across the water in the past month.

The Photographer's World, a monthly, "for the profession only," is published at Ilkley, England, by Messrs. PERCY LUND & Co. It is especially devoted to dealers, and ought to be very useful in filling a field of its own. The

last number contains several useful practical articles, items of photographic interest both home and foreign, and notices of business changes, patents, etc.

The Camera is edited by Mr. T. C. HEPPWORTH, and is published in London by WYMAN & SONS, Great Queen St., W. C. Its field is wider. Its leading article, on "Photography and Astronomy," is by Prof. R. A. PROCTOR. It contains several short practical articles, accounts of the exhibits of photographs at the amateur exhibition and at the "Colonies," and other photographic notes and gossip. It has a number of illustrations by photographic processes, and is altogether bright, interesting, and up to a high standard. It should be a welcome visitor to amateurs, especially.

To both our new contemporaries we extend a hearty greeting, and wish them growth and success.

We are indebted to the *Fliegende Blätter* for the illustrations to "My Photographic Hobby," on the first page. The pathetic verses are from the stylographic pen of one of our own dreamy, long-haired contributors. We are threatened with a "supplement soon."

OBITUARY.—Germany has recently lost three of her veteran photographers. CARL BROSCHE, of Berlin, painter and photographer, died of heart disease in his sixty-second year. He left three sons to follow the thoroughly photographic career of their sire.

JOHN GANZ, of Vienna, died in Zurich in his sixty-fifth year. He was a superior photographer, and a man beloved by all who knew him.

JOSEPH ALBERT, the well-known Munich photographer and inventor of the lichtdruck process which bears his name, died in his sixty-first year. He was a man of remarkable genius and of great use to the craft. About ten years ago, our magazine was embellished by an Albertype from his works, and we have frequently made favorable mention of his progress since. His last successes were in printing in colors. It is a loss to our art when such men are removed.

PICTURES RECEIVED.—From Mr. M. L. CARMANY, Augusta, Ga., a fine cabinet portrait with black background, of a young miss, finely composed and lighted; an example of good technical work. Messrs. McFARLIN & SPECK, Moravia, N. Y., rival the work of Mr. Carmany with a similar subject—an exquisite bit of photography. A picture of THOMAS C. AT, Esq., posed as a State Senator on one side and as one of Raphael's

cherubs on the other, is capital. But all these are completely outdone by a picture of a cat and five kittens "caught napping." It is one of the best animal groups we have seen. The mother-cat, stretched at full length, serves as background and pillow for her progeny—all asleep, yet all ears alert. It is admirable. Mr. W. W. CHOPLIN sends us a "Sow and pigs" group, a group of "pug" dogs, and a rustic composition worthy of canvas. The last is a group of young ducks floating upon a pond among the flags and daisies, all unconscious of the attempted boycotting of the mother-hen, who, ashore, has turned her back in disgust, and is rapidly making her departure. It is a pity that only one negative can be had of such gems, because we covet them for our embellishments.

A CORRESPONDENT of the *Photographic Times* suggests to the SCOVILL MANUFACTURING Co. that a leather medal, "as a novelty," be offered as a prize—at St. Louis, we presume. We have seen some beautiful things of leather, and really genuine leather is better than the baser metals.

MR. H. A. HYATT, N. E. corner Eighth and Locust Streets, St. Louis, writes: "We expect to make a fine display both at the Exhibition and at our new store. Everybody is invited to come and see. We are going to have a big Convention—at least everything looks favorable now."

A BOTTOMLESS DEVELOPING TRAY.—This sounds as if it would not hold water, but the new tray of the future will. An open frame is hinged to the "bottomless tray," upon which the plate to be developed is placed. The two are then clasped together (the adjustment to the thickness of the plate being regulated by a rubber strip between), the solution poured in, and the development pursued. The operation done, the plate which has served as the bottom is removed, and the "machine" is ready for a repetition. Mr. ATKINSON is the inventor, and E. & H. T. ANTHONY & Co. the manufacturers.

We are informed by Messrs. E. & H. T. ANTHONY & Co. that the famous "Tropical" dry plates are now made by the STANLEY DRY-PLATE Co., and that the prices are reduced to uniformity with those of the Stanley plates.

THE American Artists' Association has been reorganized by Messrs. WILSON, HOOD & Co., 825 Arch Street, Philadelphia. This will be a great convenience, as colored prints are coming into fashion again. See Circular.

Specialties.

ADVERTISING RATES FOR SPECIALTIES.

25 cents for each line, seven words to a line—in advance. *Operators desiring situations, no charge.* Matter must be received a week before issue to *secure* insertion. Advertisers will please not ask us for recommendations. ~~We~~ We cannot undertake to mail answers to parties who advertise. Please always add your address to the advertisement. **Postage-stamps taken.**

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BARGAIN LIST.

- Negative boxes, almost new, 5x8, 8x10,
10 x 12, and 14 x 18.
Drying negative rack.....\$ 25
Printing-frames 10 x 12.
1 18-inch Entrekin's Eureka Burnisher,
almost new.
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2 Bergner Cutters, stereoscopic arch top,
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DEAR SIR: Please send us three copies of Long's Art of Making Crayons on Solar Enlargements, and oblige

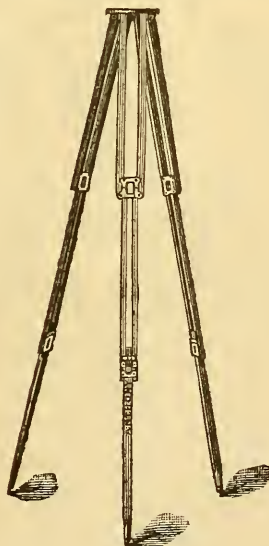
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AMONG all the photographic lenses of various makes and styles which have been introduced during the past ten years, the euryscopes, of which Voigtlander & Son are the sole manufacturers, loom up conspicuously. The success of these lenses has been unparalleled, and the demand is as lively as ever. They can be found in nearly every gallery in the land, and the amount of satisfaction and profit they produce is difficult to calculate. Most convincing proofs of their superiority over other lenses is the exquisite work done with them, and the fact that it is simply impossible to get along without them.

Send for our bargain list.

WILSON, HOOD & Co.,
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The Anthony Triplex Tripod is believed to be the very best tripod ever used. It is stiff,



strong, light, and quickly set up, and leaves nothing to desire. Throw away all others and adopt the triplex.

AMERICAN ENTERPRISE.

No invention of the nineteenth century has worked a greater revolution in household economy or conferred more of a benefit on humanity than the sewing machine.

The first productions were crude and uncouth in the extreme, and it was reserved for American skill and ingenuity to bring forth a machine of any practical value.

In order to appreciate the great advancement which has taken place it is only necessary to compare one of the machines built during the infancy of the invention with one of the latest improved "Light-running New Home."

All the really good points contained in other machines have been utilized in its construction. Many new improvements and devices have also been added, the result of which is a machine as nearly perfect as it is possible to make one.

For simplicity, durability, ease of management and capacity for work, the "Light-Running New Home" has no rival, and the happy possessor of one may rest assured that he or she has the very best the world affords.



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I BEG to announce that I have this day sold my manufactory and studio at 1125 Chestnut St., to Messrs. Charles T. Fellows and H. L. Roberts, who will continue the business as announced. Knowing their ability, as my former employes, to produce the best of results, I commend them most cheerfully, and ask your continued patronage for them.

A burden of literary work compels me to sever a connection which has been so pleasant for so many years, very reluctantly, but it is made easier by the knowledge that I leave the matter in excellent hands.

My personal address from this time will be at No. 853 Broadway, New York, where I shall continue the publication of the PHILADELPHIA PHOTOGRAPHER (semi-monthly) and photographic books.

Very truly yours,

EDWARD L. WILSON.

WILSON, HOOD & CO.,
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We have now in stock

THE NEW EAGLE DRY PLATE.

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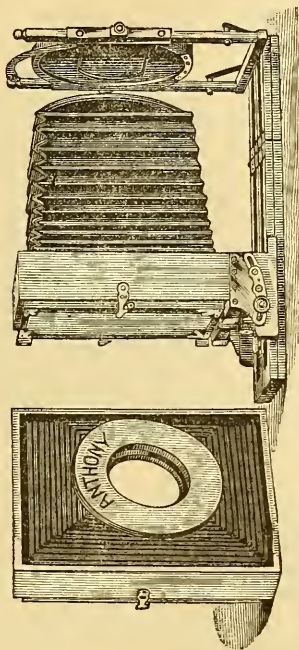
Another preserver of neatness is Anthony's Artist's Cuffs. The engraving makes the article



and its use plain. No more spoiled shirts or soiled wrists.

THE DUPLEX NOVELETTE CAMERA

Is a marvel of Camera architecture. In an instant a "vertical" camera may be turned into a "horizontal," and in another the change made from the 5 x 8 to the 8 x 10 size, and vice



versâ. It is supplied in two carrying cases, so that you may leave one part at home if you desire. The same platform and one front serves for both sizes. It is as complete an equipment as ever was invented. One holder, each size, goes with the "Duplex" at \$35. Messrs. E. & H. T. Anthony & Co. are the makers.

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TRAPP & MUNCH'S CELEBRATED

Extra Brilliant Albumen Paper,

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The Chicken Brand—Extra Brilliant.

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Anthony's Adjustable Developing Fork, especially for warm weather, is one of the greatest boons recently introduced. By its use the fingers are kept absolutely free from the developer. Ask your dealer to show you one.

EVERY photographer in want of excellent lenses, for *any purpose*, will best serve his interest by consulting the new illustrated price-list of Messrs. BENJAMIN FRENCH & Co. before purchasing.

Our dark-room and laboratory are under the charge of Dr. John Nicol, photographic chemist, late of Edinburgh. None but purest chemicals used in our preparations. All the standard dry-plate developers kept in stock. Your patronage desired.

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SPECIAL CARD.

Talcott's Improved Mounting for photographs softens the lines, gives much strength and great brilliancy to the picture, and is the only process by which a photograph may become indelible.

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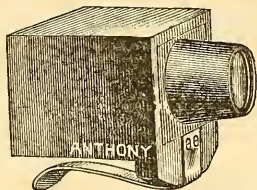
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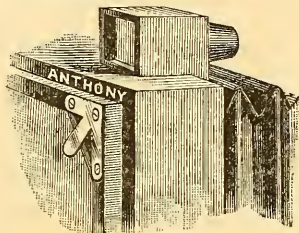
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16 x 20.....	1 00	1 25
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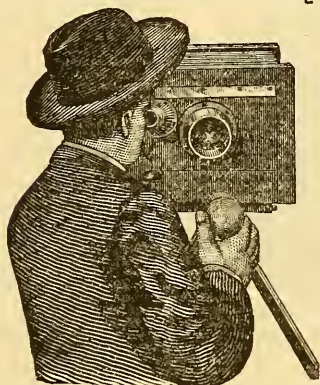
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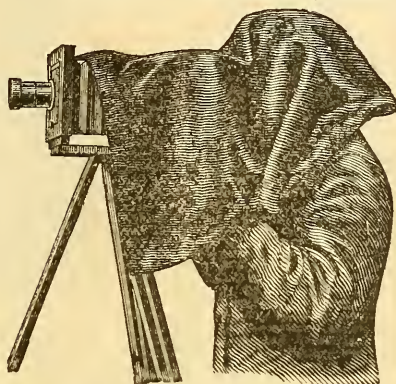
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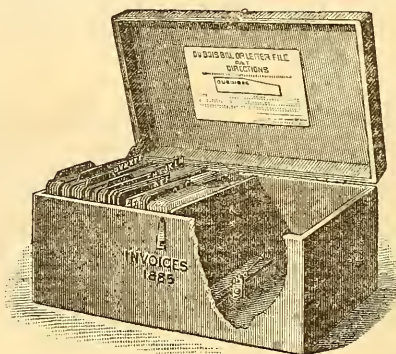
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PHOTO-GRAVURE.—By this process the highest artistic effects are produced. Metal plates are engraved (in intaglio) by photography and printed in copper-plate presses. The effects produced by photography may be altered by the hand of the artist, values may be increased or diminished, and almost any omission or addition made. The work may be carried on till the desired effect is produced and the edition is always uniform. The plates can be supplied when desired, or the Photo-Gravure Co. will do the printing. The results obtained by the Photo-Gravure Co. equal the best results obtained abroad, and reference to this effect is permitted to leading Publishers and Artists who have used these plates. All classes of subjects, whether in half-tone or line, can be produced by this process.

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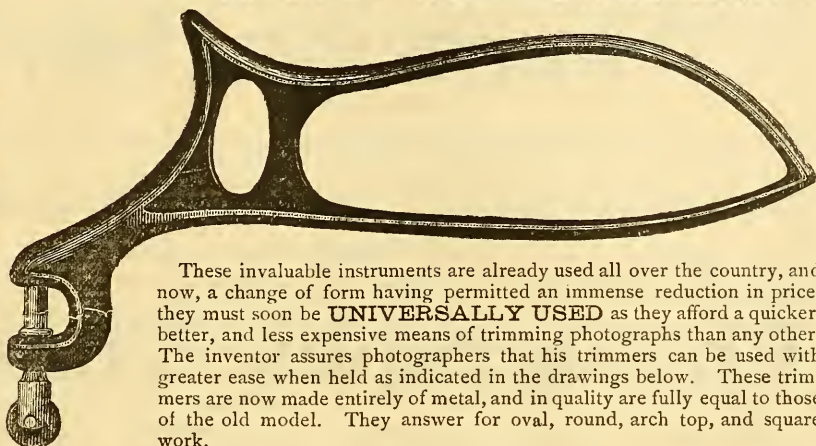
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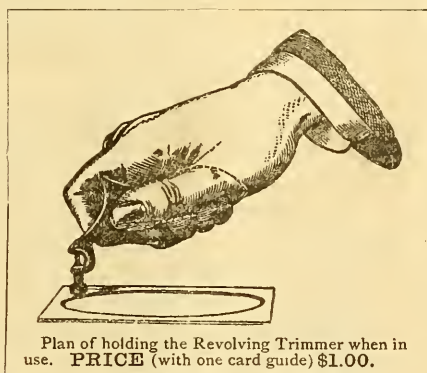
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2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	3 $\frac{1}{2}$ x 4 $\frac{1}{2}$	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 x 9
2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	3 $\frac{1}{2}$ x 5	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
2 $\frac{1}{2}$ x 3 $\frac{1}{2}$	4 x 5	5 $\frac{1}{2}$ x 7 $\frac{1}{2}$	7 $\frac{1}{2}$ x 9 $\frac{1}{2}$
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2 $\frac{1}{8}$ x 3 $\frac{3}{4}$	2 $\frac{5}{8}$ x 3 $\frac{7}{8}$	2 $\frac{3}{4}$ x 4 $\frac{3}{8}$	4 $\frac{1}{2}$ x 5 $\frac{5}{8}$
2 $\frac{1}{8}$ x 3 $\frac{1}{2}$	2 $\frac{3}{4}$ x 4 $\frac{1}{4}$	3 $\frac{1}{8}$ x 5 $\frac{1}{4}$	3 $\frac{7}{8}$ x 6
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GENERAL NOTES.....By the Editors.
NOTES AND QUERIES....."

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TO THE PHOTOGRAPHIC FRATERNITY.....By W. H. POTTER, *President*.
THE MEDALS TO BE AWARDED (illustrated).....By JOSHUA SMITH.
RULES AND REGULATIONS TO GOVERN THE PHOTOGRAPHIC STOCK DEPART-
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PRIZES TO BE AWARDED AT ST. LOUIS CONVENTION, By R. BENECKE, *Local Secretary*.

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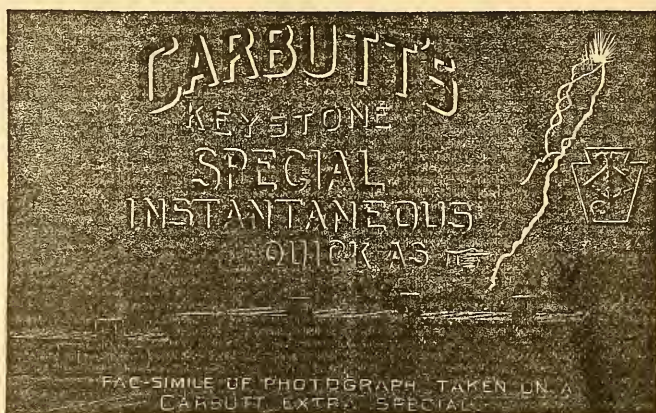
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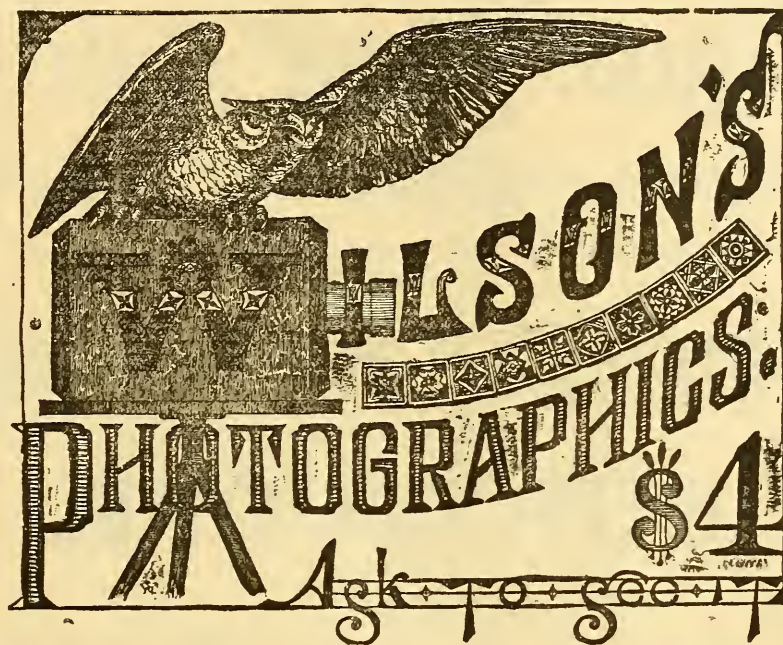
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EDITED BY
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591 BROADWAY
New York.

THE BULLETIN FOR 1886.

That the BULLETIN has proved a success during the past year, our long list of unsolicited testimonials bears ample witness. And we have found it utterly impossible to publish all the good things that have been said of us, owing to the wealth of material always at hand to fill our pages. What is yet more encouraging to us is the large increase in our subscription lists, on which the number of names is now almost double what it was one year ago, and is increasing with every issue of the journal.

We recall with pride the names of some of the contributors to our pages: Prof. C. F. Chandler, Ph.D., Prof. Ogden N. Rood, Dr. A. H. Elliott, Ph.D., Prof. J. M. Eder, Ph.D., Henry J. Newton, E. L. Wilson, Ph.D., L. H. Laudy, Ph.D., Victor Schumann, Prof. Chas. F. Himes, Thos. Bolas, F.C.S., M. Carey Lea, Dr. R. W. Wilcox, F. C. Beach, Dr. John H. Janeway, Prof. Spencer Newberry, A. A. Campbell Swinton, Fred. E. Ives, T. C. Roche, E. K. Hough, G. H. Loomis, J. B. Gardner, W. E. Partridge, P. C. Duchochois, J. F. Ryder, David Cooper, Abraham Bogardus, and a host of others. In addition to the contributions from the above gentlemen, we have given our readers clear and accurate reports of the photographic societies, in many cases from the stenographic notes of our own reporters. Our correspondence column has been a source of pleasure to our editors, and has become an important and unrivaled feature of our publication.

This is what we have done and shall continue to do, with this advantage, that the fund of material upon which we can draw in the future is still larger than that utilized in the past. Among other improvements we intend to illustrate every number of the BULLETIN with a specimen of the best work in both professional and amateur photography. Thus the subscribers will obtain in one year, two dozen gems of the photographic art. Various improvements in the literary part of the journal will also be made. In fact, nothing will be left undone to keep it in the front rank of American Photographic journals.

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We have laid out a large amount of work for the coming year, and we intend to carry it through. But to do this with energy and pleasure, we must have the encouragement of our readers and subscribers. Help us, and we will help you as much as, if not more, than in the past. Our policy will always be, *With charity for all and malice towards none,*

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